

AN INTEGRATIVE APPROACH TO TREAT OBSESSIVE COMPULSIVE DISORDER (OCD): DEVELOPMENT AND VALIDATION

Thesis Submitted for the Award of the Degree of

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in
Psychology

By

Atul Madaan

Registration Number: 41700210

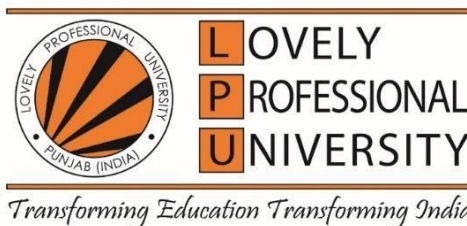
Supervised By

Dr. Mridula Mishra (UID:12302)

Professor & Head,

Department of Human Resource Management

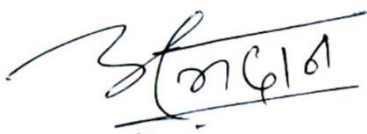
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DECLARATION

I, hereby declare that the presented work in the thesis entitled “***An Integrative Approach to Treat Obsessive Compulsive Disorder (OCD): Development and Validation***” in fulfilment of the degree of Doctor of Philosophy (PhD) in Psychology is the outcome of research work carried out by me under the supervision of Dr. Mridula Mishra working as Professor & Head, Department of HRM in the Mittal School of Business of Lovely Professional University, Punjab, India. In keeping with the general practice of reporting scientific observations, due acknowledgements have been made whenever the work described here has been based on the findings of other investigators. This work has not been submitted in part or full to any other University or Institute for the award of any degree.



Atul Madaan

Registration No.: 41700210

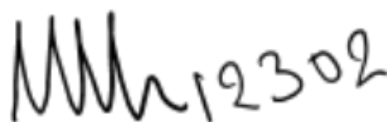
School of Social Sciences and Languages

Lovely Professional University

Punjab, India

CERTIFICATE

This is to certify that the work reported in the Ph. D. thesis entitled “***An Integrative Approach to Treat Obsessive Compulsive Disorder (OCD): Development and Validation***” submitted in fulfilment of the requirement for the award of degree of Doctor of Philosophy (PhD) in Psychology, is a research work carried out by Atul Madaan Registration No. 41700210, is a bonafide record of his original work carried out under my supervision and that no part of the thesis has been submitted for any other degree, diploma or equivalent course.

A handwritten signature in black ink, appearing to read 'MM 12302', is positioned above the printed name and details of the certifier.

Dr. Mridula Mishra (UID: 12302)

Professor & Head

Department of Human Resource Management

Mittal School of Business

Lovely Professional University

Punjab, India

ABSTRACT

Obsessive-Compulsive Disorder (OCD) is a prevalent and debilitating mental health condition characterised by the presence of obsessions and compulsions, often leading to significant distress and impairment in daily functioning. Current treatments, such as Cognitive-Behavioral Therapy with Exposure and Response Prevention (CBT-ERP), have shown efficacy in managing OCD symptoms. However, CBT-ERP requires long therapy sessions with a high focus on homework assignments and anxiety-provoking exposure techniques, which can be challenging for some individuals, resulting in high attrition rates and suboptimal treatment outcomes.

Conventional CBT-ERP is being used as a gold standard treatment for OCD and has shown promising results in reducing OCD symptoms. It involves exposing individuals to anxiety-provoking situations while preventing them from engaging in their compulsive behaviors, thus allowing them to habituate to their anxiety and learn that the feared consequences do not occur. However, CBT-ERP may not be suitable for all individuals, as exposure-based techniques can be challenging and distressing, leading to high attrition rates and treatment non-adherence. Therefore, there is a need for alternative therapeutic approaches that can effectively address OCD symptoms while being more client-friendly and less anxiety-provoking.

In light of these challenges, this study aimed to develop and validate an integrative and client-centred therapeutic approach, the proposed therapy, to address the limitations of CBT-ERP for OCD. The proposed therapy incorporates key components, including neuropsychoeeducation, intrinsic motivation, and metaphoric language, within the basic framework of CBT. The primary focus of the proposed therapy is to empower clients through knowledge and intrinsic motivation, promoting their active involvement in the treatment process and fostering self-directed behavioral change. Unlike CBT-ERP, the proposed therapy focuses more on clients' self-efforts, reducing the need for extensive therapist-assisted exposure sessions in the clinical setting.

The proposed therapy is designed with the goal of offering a less aversive and more empowering treatment option for individuals with OCD. By integrating components

such as neuropsychoeducation, intrinsic motivation, and metaphoric language, the proposed therapy aims to provide clients with a comprehensive understanding of their condition and equip them with the tools and motivation to actively engage in their treatment.

Neuropsychoeducation involves educating clients about the neurobiological basis of OCD, helping them understand how the brain and cognitive processes contribute to their symptoms. This knowledge-based approach helps demystify OCD and reduces feelings of shame or guilt that individuals may experience due to their symptoms. Additionally, it fosters a sense of empowerment, as clients gain insights into their condition and recognize that OCD is a medical condition and not a personal failing.

Intrinsic motivation is another critical component of the proposed therapy. By tapping into clients' inherent motivations and values, the therapy encourages them to take ownership of their treatment journey. This approach emphasizes that treatment is not solely imposed by external factors, but rather a collaborative effort between the therapist and client. Clients are encouraged to identify personal goals and values that they want to work towards, making the therapeutic process more meaningful and relevant to their lives. As clients are intrinsically motivated to achieve their goals, they are more likely to actively participate in treatment and persist through challenging moments.

Metaphoric language is skillfully utilized in the proposed therapy to facilitate the exploration of unconscious processes and emotions. Metaphors are powerful tools that can help clients express complex feelings and thoughts that may be difficult to articulate directly. By using metaphors, therapists can create a safe and non-threatening environment for clients to explore their inner experiences, enabling deeper insights and understanding. Metaphors also have the capacity to inspire hope and optimism, promoting a sense of possibility and transformation for clients as they work towards their treatment goals.

The study employed a rigorous research design to assess the efficacy of the proposed therapy and its comparative effectiveness with the established gold standard CBT-ERP method. A two-group, pre- and post-intervention clinical trial design was used,

randomly assigning 52 participants diagnosed with OCD to either the experimental group receiving the proposed therapy or the control group receiving CBT-ERP. The participants' ages ranged from 18 to 60+ years, reflecting the diverse population affected by OCD. Each participant's OCD symptoms were assessed at baseline, post-treatment, at 1-month follow-up, and finally at 3-month follow-up.

Various statistical analyses were conducted to evaluate the efficacy of the proposed therapy and its comparative effectiveness. Demographic variables were analysed using Fisher's exact and Chi-Square tests to ensure the groups were well-matched, and the attrition rates between the two groups were compared using the Chi-Square test. To assess changes within each group over time, repeated measures ANOVA with effect size estimate using Wilk's lambda was employed, providing valuable insights into the therapy's impact. Additionally, an independent t-test was used to compare the outcomes between the two groups. A power analysis was performed to determine the optimal sample size for this study, ensuring sufficient statistical power to detect significant effects.

The results of the study revealed promising efficacy for the proposed therapy, with significant reductions in OCD symptoms that were comparable to those observed in the CBT-ERP group. The effect sizes indicated substantial treatment effects in both groups, supporting the clinical significance of the findings. A notable finding was the lower attrition rate in the proposed therapy group compared to the CBT-ERP group. This suggests that the emphasis on self-empowerment and knowledge in the proposed therapy may have contributed to higher treatment adherence and client satisfaction, potentially reducing premature dropouts often associated with anxiety-provoking exposure techniques.

In conclusion, the development and validation of the proposed therapy offer a promising alternative to CBT-ERP for OCD. By prioritising client empowerment through knowledge and intrinsic motivation and minimizing anxiety-provoking techniques, the proposed therapy holds significant potential to enhance treatment retention, client satisfaction, and overall therapeutic success in the management of OCD. Further research is needed to validate the long-term efficacy and generalizability of the proposed therapy in larger and more diverse populations.

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LIST OF ABBREVIATIONS

5-HT	5-hydroxytryptamine
ACT	Acceptance & Commitment Therapy
APA	American Psychiatric Association
ASUD	Alcohol & Substance Use Disorder
BST	Brief Strategic Therapy
BT	Behavior Therapy
CBGT	Cognitive Behavioral Group Therapy
CBT	Cognitive Behavioral Therapy
CET	Client Empowerment Therapy
CT	Cognitive Therapy
DCS	D-cycloserine
DSM	Diagnostic & Statistical Manual of Mental Disorders
EAAC1	Excitatory Amino Acid Carrier-1
ECA	Epidemiological Catchment Area
ERP	Exposure & Response Prevention
ES	Effect Size
DBT	Dialectical Behavior Therapy
FDA	Food & Drug Administration
fMRI	Functional Magnetic Resonance Imaging
GABA	Gamma-Aminobutyric Acid
ICD	International Classification of Disorders
IPT	Ironic Process Theory
MBCT	Mindfulness-Based Cognitive Therapy
MET	Motivation Enhancement Therapy
MI	Motivational Interviewing
NIPE	Neuroscience Informed Psychoeducation
NMDA	N-methyl-D-aspartate
OCD	Obsessive Compulsive Disorder
PE	Psychoeducation
PET	Positron Emission Tomography
RCT	Randomized Controlled Trial
RFT	Relational Frame Theory
SLC1A1	Solute Carrier Family-1 Member-1
S-REF	Self-Regulatory Executive Function
SSRI	Selective Serotonin Reuptake Inhibitor
SUD	Subjective Units of Distress
TAF	Thought Action Fusion
TEA	Thought-Emotion-Action
WHO	World Health Organization
YBOCS	Yale-Brown Obsessive-Compulsive Scale

CHAPTER 1

INTRODUCTION

Obsessive-Compulsive Disorder (OCD) is a prevalent and persistent mental health condition characterized by the presence of obsessions and compulsions, accompanied by significant anxiety (American Psychiatric Association, 2013). This disorder has a substantial impact on an individual's social and occupational functioning, often resulting in a four-fold increased risk of unemployment when compared to individuals without a psychiatric diagnosis (Koran et al., 1996). OCD ranks among the top ten causes of years lived with a disability due to illness, underscoring its chronic and debilitating nature (Murray & Lopez, 1996). Initially considered rare and challenging to treat, the National Epidemiological Catchment Area (ECA) survey (Karno et al., 1988) revealed its prevalence, leading to advancements in our understanding and management of this disorder. Despite its prevalence, many individuals with OCD hesitate to seek help due to feelings of embarrassment about their unwanted thoughts, resulting in delayed treatment seeking. Even when individuals start treatment, high attrition rates are observed, with patients discontinuing due to anxiety-provoking exposure techniques. Enhancing treatment adherence and exploring alternative approaches to manage OCD with less anxiety-inducing elements are crucial for optimizing outcomes and providing comprehensive care to individuals with OCD (Abramowitz & Jacoby, 2015).

1.1 Origin and History of OCD

Although a formal conceptualisation of obsessive-compulsive disorder may be fairly recent, the disorder seems to have been around in different forms in the distant past. OCD symptoms are described in the classic play 'Macbeth' written by Shakespeare, where Macbeth's wife appears to have washing compulsions. Earlier descriptions regarded obsessions and compulsions as a form of religious melancholy, with some of the earliest cases reported by Robert Burton in his work 'The Anatomy of Melancholy'

(1621). Obsessions were seen as blasphemous thoughts that came up in a person's mind while they were worshipping God, no matter what they did to get rid of them. People thought that when someone has trouble with them, they tend to get worse.

It wasn't until the 1800s that OCD was thought of in a more modern and scientific way. Delusions were kept separate from obsessions with keeping enough insight. Compulsions were also different from impulsions, which were actions that were sudden and hard to stop. The first-time obsessions and compulsions were talked about in psychiatric writing were in Esquirol's psychiatry textbook, which came out in 1838. This book said that OCD is a "voluntary monomania". It means that actions that people don't want to do are caused by a lack of willpower, not by reason or emotion. It seemed like the will couldn't stop something that the mind had already decided was wrong (Berrios, 1989). Morel (1866) put OCD symptoms in a group called "delire emotif", which means "diseases of emotions". These diseases are caused by problems in the autonomic nervous system. He said that anxiety was the reason why OCD was put in the category of emotional disorders.

In 1870, Dagonet called OCD "folie impulsive", which means "impulsive insanity". He says that "violente impulses" take over a person's will and then turn into obsessions and compulsions. Magnan (1893) thought that OCD was a form of degenerative insanity called "folie des degeneres", which suggested that the changes in the cerebral cortex were caused by genes. Griesenger called OCD "Grubelnsucht", which means "a ruminating illness", in 1868 (Alvarenga et al., 2007). In 1878, Wetsphal came up with the term "Zwangsvorstellung" for obsessive-compulsive disorder. This word is still used today. In the UK, "Zwangsvorstellung" meant "obsessions", but in the US, it was called "compulsions". Over time, the two definitions came to agree on the term "Obsessive-Compulsive Disorder", which is a combination of the two. OCD was put in the category of "neurasthenia", which means that the nervous system isn't as strong as it used to be (Berrios, 1995). George Beard came up with the word "neurasthenia" in 1869. It included OC symptoms as well as fatigue, anxiety, headache, impotence, neuralgia, and depression (Alvarenga et al., 2007). Pierre Janet and Sigmund Freud's work in the early 20th century helped to separate the idea of OCD from that of neurasthenia. Janet wrote a book in 1903 called "Les Obsessions et la Psychasthenie"

about obsessions and psychasthenia. In it, he said that obsessions and compulsions developed in the last stage of any psychasthenic illness. He says that when there isn't enough psychological tension to do higher-order mental tasks, the nervous energy that is left over is redirected and used for more basic tasks. Part of these basic needs is having obsessions and compulsions. He emphasised the role of symptoms, which he called "forced agitations", and put them into three groups: mental (obsessions), motor (tics), and emotional (dysmorphophobia). This idea is very close to the way OCD is thought of today in terms of obsessions and compulsions (Alvarenga et al., 2007).

Freud's idea of OCD was related to his ideas about defence mechanisms, mental energy, and structure. Freud first used the term "obsessive neurosis" (German: "Zwangsneurose") in his 1895 paper on anxiety neurosis. A person with OCD usually has a bad or dysfunctional way of dealing with a conflict between the sexual and aggressive urges of their "id" and the rules and expectations of society. The person goes back to the anal stage, which is one of the earlier stages of psychosexual development. Ambiguity and uncertainty lead to doubt, and magical ways of thinking lead to superstitious habits. He said that the defence mechanisms of intellectualization, isolation, undoing, and reaction formation are at the heart of what causes OCD (Alvarenga et al., 2007).

Before the DSM-IV-TR and its earlier versions, OCD was called an anxiety spectrum disorder. This is because obsessions often cause high levels of anxiety, which can be a problem for the person. The compulsive act then makes the person feel less anxious. The fact that OCD is often linked to other anxiety disorders was another reason why it was put in this category.

1.2 Clinical Features and Diagnosis

Obsessions may encompass repetitive thoughts related to contamination, a strong urge for orderliness, intrusive and sexual thoughts, and preoccupations with religion. It is common for individuals to experience multiple obsessions simultaneously, leading to a wide array of intrusive thoughts reported by clients. A **compulsion** refers to a behavior or mental action that an individual willingly and repeatedly performs, knowing it is

purposeless and unnecessary, yet feeling compelled to do so either due to an obsession or strict adherence to certain rules. Similar to obsessions, clients acknowledge that compulsions originate from within themselves. Compulsions can be overt or covert, that is mental or behavioural. Mental compulsions may include saying prayers mentally, repeatedly checking a list of tasks mentally, etc. Sometimes, when it may not be possible for the individual to carry out a compulsion behaviourally, they may temporarily engage in it mentally. In many cases, there may be no logical connection between compulsion and obsession. However, the compulsion may still be successful in reducing anxiety simply because of the mere temporal association between the two. Common compulsions encompass cleaning, checking, arranging, mental counting, and seeking reassurance. Both obsessions and compulsions are typically ego-dystonic, and clients are usually conscious of their irrational nature. As time passes, obsessions and compulsions can undergo changes, frequently in reaction to developmental shifts (Evans et al., 1997).

1.3 Diagnostic Classifications

Obsessive-Compulsive Disorder (OCD) is classified as a distinct disorder category in both the Diagnostic and Statistical Manual of Mental Disorders-5 (DSM-5) and the International Classification of Disorders-10 (ICD-10). A diagnosis of OCD is typically made when an individual's obsessions and compulsions lead to significant distress and interfere with their usual functioning. The obsessions (intrusive, distressing thoughts) and compulsions (repetitive behaviors or mental acts) associated with OCD can be highly time-consuming and have a profound impact on an individual's ability to carry out daily activities and maintain their overall well-being.

The DSM-5 defines Obsessive-Compulsive Disorder (OCD) with four criteria: (A) Presence of obsessions or compulsions: Obsessions are recurring distressing thoughts, often leading to compulsive actions for relief. (B) Symptoms require over one hour daily and cause significant distress or life impairment. (C) OCD isn't due to substances or medical issues. (D) OCD diagnosis excludes other DSM-5 mental disorders.

In addition to these criteria, the guidelines consider the client's level of insight into their condition, ranging from good insight to poor insight, and whether they experience delusional ideas related to their symptoms.

As per the ICD-10 criteria, a conclusive diagnosis of Obsessive-Compulsive Disorder (OCD) necessitates meeting the following conditions: 1. Obsessive symptoms, compulsive behaviors, or both must be present on most days for at least two consecutive weeks, causing distress or interfering with daily life. 2. Obsessions should have specific features: a) Individuals must acknowledge these thoughts or impulses as their own. b) Resistance to at least one thought or action, even if others are no longer resisted. c) The thought of performing the action should not be inherently enjoyable. d) The recurring thoughts, images, or impulses must be distressing.

1.4 The Obsessive-Compulsive Disorder Cycle

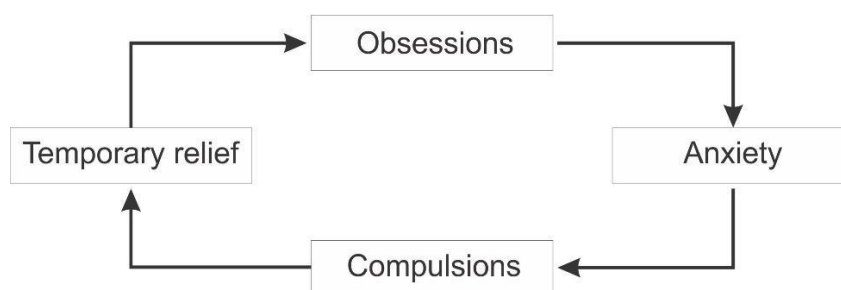


Figure 1.1: Vicious Cycle of OCD

Obsessions are unwelcome, recurring thoughts, ideas, images, or impulses that intrude into an individual's mind without their consent. These thoughts provoke significant anxiety and are challenging to dismiss. Compulsions, on the other hand, involve repetitive actions carried out to alleviate the anxiety stemming from these obsessions. However, the relief achieved is typically short-lived. As obsessive-compulsive disorder progresses, these rituals may become more automatic and, instead of reducing anxiety, can actually intensify it. The Vicious Cycle of OCD revolves around distressing

obsessions that trigger intense anxiety, prompting individuals to engage in compulsive behaviors as a temporary form of relief. However, this relief is short-lived, as the obsessive thoughts resurface, compelling them to repeat the compulsions in an attempt to alleviate anxiety once more. This cycle persists, causing a continual escalation of obsessive thoughts and compulsive actions, leading to a significant impact on daily life (as depicted in Figure 1.1). Psychological theories concerning obsessive-compulsive disorder propose that engaging in rituals sustains the problem by preventing the individual from becoming accustomed to the anxiety and from disproving their fears. Psychological therapies seek to disrupt this cycle by encouraging patients to confront situations that provoke their fears and to refrain from carrying out any rituals. This therapeutic approach is referred to as exposure and response prevention (Heyman, 2006).

1.5 Range of Symptoms

OCD was earlier considered to be a part of the anxiety spectrum disorders. In contrast to other anxiety disorders, the symptoms observed in OCD were found to be much more diverse in nature and idiosyncratic to the individual's personal concerns. OCD has now been recognized as a separate disorder in itself (American Psychiatric Association, 2013). Neither the DSM-5 (American Psychiatric Association, 2013) nor the ICD-10 (World Health Organisation, 1992) categorizes OCD symptoms into separate subtypes. Also, individuals with the disorder have a heterogeneous array of symptoms, and compiling them into a unitary classification system can often be misleading. If two individuals diagnosed with OCD were to be compared, there is a possibility that the two could have a completely different, non-overlapping set of symptoms.

In Baer's study (1994), the Yale-Brown Obsessive-Compulsive Scale (YBOCS) was administered to a group of 107 individuals diagnosed with OCD. Through Principal Components Analysis, three distinct factors emerged: Orderliness/hoarding, contamination/ Cleanliness, and pure obsessions. These factors were found to best account for the range of symptoms assessed by the Y-BOCS Symptom Checklist. Leckman et al. (1997) found four factors distinct from the ones yielded in Baer's (1994)

study. Leckman et al. also factor analysed YBOCS, which was administered to 208 OCD patients and found the following four factors: obsessions/checking, cleanliness and washing, hoarding, and symmetry/ordering.

A comprehensive analysis of 21 studies involving a total of 5124 individuals conducted by Bloch et al. (2008) identified four distinct factors as follows: 1. Symmetry, which includes obsessions related to symmetry and compulsions involving repeating, ordering, and counting. 2. Forbidden thoughts, which encompass obsessions related to aggression, sexuality, religion, and somatic concerns, along with checking compulsions. 3. Cleaning, which involves obsessions and compulsions related to cleaning and contamination. 4. Hoarding, which includes obsessions and compulsions related to hoarding behaviors.

Calamari et al. (1999) employed cluster analysis in a sample of 106 OCD patients and initially identified five symptom-based clusters, which were harming, hoarding, contamination, certainty, and obsessions. They later refined this symptom-based taxonomy to include seven clusters, which encompass harming, hoarding, contamination, certainty, obsessions, symmetry, and cleanliness (Calamari et al., 2004).

Following is the description of each of the commonly reported and observed subtypes of OCD – 1) **Washing:** Individuals experiencing compulsions of washing and cleaning have an obsession with contamination. Their irrational fear surrounds the possibility of becoming contaminated by the dirt, germs, etc., in the surroundings. This causes them to compulsively try and avoid this possibility, which leads to several avoidance behaviours such as not using public transport, etc. When avoidance does not work, they may resort to all possible means of removing the contamination they think has been caused. These obsessions can be related not only to germs or dirt but also viruses or any other agents that make it likely for them to suffer from a disease. Washers may recurrently wash their hands or bathe, while cleaners are more likely to clean their surroundings multiple times, such as the kitchen, bathroom, entire house, etc. The person may refuse to use a public toilet, touch door knobs or public telephones, touch staircases, refuse to visit a hospital, etc. 2) **Obsessing:** Individuals with this subtype primarily experience only obsessions and no overt compulsions. Themes of such obsessions can revolve around harm to self or others and sexual thoughts. 3) **Checking:**

Individuals with this subtype tend to check doors, locks, etc., sometimes several times within a few minutes. Some individuals may also tend to check switches in their houses or workplace. They are constantly fearful that they have left a door or window open or unlocked or that some switch or electrical appliance has remained turned on. They may also be preoccupied with the thought that they have left the kitchen stove on. These obsessions and irrational fears cause them to check and recheck the objects surrounding their obsessions repeatedly. Individuals may often fail to reach their workplace on time or fulfil any other outdoor activity as they may return to their homes to verify if they have locked the door or turned off the appliance.

4) **Ordering:** This subtype is marked by an obsession that things are supposed to be arranged, organised or ordered in a certain way. Individuals with this subtype believe that their way of arranging is the only one which is 'correct' and, sometimes, 'perfect' way of organizing things. Before even beginning their day, such individuals may be driven by a need to arrange things in a particular order, without which they may find it extremely difficult to continue with their daily routine. They tend to be very intolerant towards any changes in the order of things and towards people who touch or rearrange their things. Their preferences about the order of things may encompass a large variety, such as arranging things on the basis of colour, size, shape, etc. There may not be any relationship between their arrangement and utility or frequency of usage. In fact, it can often be counterproductive; for instance, arranging on the basis of colour may include an item used every day, leading them to arrange and rearrange repeatedly. This pattern may not just be limited to their own household or objects belonging to them. The idea that things should be arranged only in a specific pattern may become so ingrained that they may start 'fixing' things when they visit someone else too.

5) **Hoarding:** Individuals suffering from this subtype have an intense need to collect objects which would be regarded as largely useless by most people. These objects may have little or no utility to the hoarder as well. In cases where they do hoard useful objects, such as pencils, notebooks, sugar packets, etc., it may be done in such large quantities that it will be impossible for them to use all of it in their lifetime. This hoarding behaviour may occur at the expense of hygienic and safe living conditions.

6) **Neutralizing:** Intrusive thoughts are generally unacceptable or taboo, causing severe distress. People may engage in only mental compulsions or neutralizing to relieve themselves of the anxiety that arises from such thoughts. They may not

engage in overt behavioural compulsions. Frequent neutralizing behaviours include repeating certain sentences, words or sounds, special prayers set in a particular manner, mental counting, making mental lists, mental reviewing, mental erasing of intrusive images and mental undoing. These neutralizing behaviours can provide temporary relief similar to that provided by overt compulsions, and thus, these thoughts are considered equivalent to overt compulsions.

1.6 Prevalence Rate

Obsessive-Compulsive Disorder (OCD) is a relatively common condition, with a 12-month prevalence of 1.2% and a lifetime prevalence of 2.3% as indicated by Ruscio et al. (2010). A nationwide study in India, conducted by Khanna et al. (1993), reported a lifetime prevalence of 0.6% for OCD. In India, numerous region-specific epidemiological investigations have taken place. In the Indian state of Kerala, Jaisooriya et al. (2015) conducted a study on schoolchildren, examining the prevalence of OCD and its associations with conditions like ADHD, psychological distress, substance abuse, suicidal tendencies, and a history of sexual abuse. Findings revealed that 0.8% of the sample met the ICD-10 criteria for OCD. Taboo thoughts and mental rituals were frequently observed, and individuals with OCD also exhibited higher rates of sexual abuse, suicidal ideation, substance use (especially tobacco), psychological distress, and poor academic performance. Revoori et al. (2016) conducted a study to examine the prevalence and severity of OCD in Warangal, India. YBOCS Scores were obtained and analysed using ANOVA and Chi-square tests. The results indicated that OCD was more common among the ages of 21 to 30 years. The most common obsessions and compulsions were fear of harming and repeating. OCD was also more common among those with some education than those without formal education. The prevalence of OCD was reported to be 0.8% in India in the National Mental Health Survey (Gururaj et al., 2016). This survey was conducted on a nationally representative sample, with participants taken from 12 Indian states. The prevalence of many mental disorders was found to be higher in urban areas than in rural ones. The researchers attributed this

prevalence to factors such as fast-paced life, stress, lack of support systems, economic instability, etc. These findings suggest the prevalence to be considerably lower in India as compared to Western statistics of about 2- 3% reported mainly in European and North American settings. The reasons behind this relatively low prevalence remain unknown, although it is not very low compared to a conservative estimate of 1% for OCD.

1.7 Gender and OCD

Gender has been shown to be an important variable in the pathophysiology and treatment of many conditions. The neurobiological underpinnings of several psychiatric disorders have also shown significant gender differences. These disorders influence various areas of a person's life, such as economic, sociocultural, psychosocial, economic, etc., which could also differ with respect to gender. Castle et al., (1995) examined 219 patients suffering from OCD for gender differences. They found that females, on average, had a later onset and were also more likely to have a past history of eating disorders and depression. Males more commonly had an earlier onset and were more likely to be prone to anxiety and meticulous personality traits. Another interesting finding was that more obsessions were reported between the ages 16 to 20 years and 46 to 70 years as compared to the middle age range. Some studies have reported higher rates of associated panic attacks in females and a greater history of perinatal trauma in men, which predisposes them to an earlier onset (Lensi et al., 1996).

Jaisoorya et al. (2008) investigated the sex differences in OCD in relation to factors such as sociodemographics, symptom profiles, and comorbidities. The study included 231 participants, and the results were consistent with other studies with males having an earlier onset and more symmetry or religious obsessions. Females had more cleaning compulsions and comorbid trichotillomania. Jaisoorya et al. (2009) found differences in the manifestation of symptoms as a function of gender. There was a greater tendency among the male participant to present with obsessions with sexual content or related to symmetry along with compulsions. The obsessions and compulsions reported by

females were mostly associated with dirt, contamination and cleaning. One possible explanation for the differences could be that females are more often exposed to unclean or dirty surroundings as well as socialisation that make them do a greater share of household chores such as cleaning, etc.

A literature review by Mathis et al. (2011) investigated the demographic, clinical and genetic aspects related to OCD with respect to gender. The overall findings of their review of clinical studies concluded that men had an earlier onset as compared to women. Males were more likely to be single and living with original families than women, who were more likely married and have children. Men had more checking compulsions; more severe OC symptoms; sexual, repetitive, religion and symmetry-related symptoms and aggressive obsessions. Women had more cleaning, checking compulsions, contamination and cleaning symptoms. Men also experienced more obsessions without compulsions. Men were likely to suffer from comorbid conditions of alcohol dependence, hypochondriasis, paraphilias, social phobia, hypomania, depersonalisation, tics and bipolar disorder, Attention Deficit Hyperactivity Disorder and Post Traumatic Stress Disorder. On the other hand, women showed comorbid conditions like depression, eating disorders, panic attacks, other impulse control disorders, trichotillomania and other anxiety symptoms.

1.8 Etiological Models of OCD

Numerous etiological models of OCD have been proposed to contribute to the disorder's overall understanding. Few of these theories have utilised rigorous and systematic scientific methodologies to provide substantial empirical evidence on the mechanisms underlying the disorders. Some of them provide explanations for only a subset of OCD symptoms.

1.8.1 : Biological

Researchers have invested significant resources in investigating hereditary and other biological elements related to the onset and persistence of OCD. Over the last twenty years, substantial research has been conducted to elucidate the fundamental biological

processes associated with OCD. Nevertheless, this field remains marked by ongoing debates (McCoy et al., 2013). Notwithstanding this uncertainty, scholars have made substantial progress in understanding the genetic, neurobiological, and atypical categorization aspects of OCD.

Genetics: OCD appears to be influenced by genetic factors, a conclusion substantiated by family studies. Twin investigations, in particular, present persuasive evidence regarding the role of genetics in the transmission and development of OCD symptoms (Rosario-Campos et al., 2005). The historical lineage of twin research in OCD reaches back to as early as 1929 (Van Grootheest et al., 2005) and serves as an invaluable tool for assessing the genetic contributions to the emergence of psychopathological disorders (Taylor, 2011). While the exact heritability estimates for OCD symptoms exhibit some variability, with estimates ranging from 45% to 65% (Hanna et al., 2005), twin studies consistently unveil noteworthy trends. Notably, monozygotic twins consistently exhibit the highest concordance rates, typically clustering within a range of 80% to 87%. In contrast, dizygotic twins manifest lower concordance rates, typically hovering between 47% and 50% (Arnold et al., 2006). It is essential to highlight that these rates notably surpass those typically observed for other conditions traditionally classified as anxiety disorders (Meir, 2005). Nonetheless, it is imperative to underline that while twin studies furnish compelling evidence for a genetic foundation of OCD, they do not supply specific insights into the precise genes implicated in the disorder. The identification of the exact genetic determinants necessitates the implementation of alternative research methodologies.

Functional Neuroanatomy: The neurobiological underpinnings of OCD have been the subject of extensive research, and numerous theories have emerged to explain how disruptions in neural circuits contribute to the development and maintenance of the disorder. One prominent theory posits that OCD involves dysfunction in a neural circuit that connects various brain regions. This circuit comprises several key components, including the orbital frontal cortex, cingulate gyrus, striatum (specifically the caudate nucleus and putamen), globus pallidus, thalamus, and frontal cortex. These regions are interconnected and play vital roles in regulating various cognitive and emotional processes. Dysfunction within this neural circuit can manifest as obsessive and

compulsive behaviors in response to various triggers, both internal and external (Shephard et al., 2021). This theory suggests that organic injury or abnormalities in these brain regions can disrupt the normal functioning of the circuit, leading to the hallmark symptoms of OCD. One line of evidence supporting this neural circuitry theory comes from the outcomes of neurosurgical treatments for OCD. When individuals with OCD do not respond to conventional therapies like medication and psychotherapy, neurosurgical procedures are considered. These surgeries, such as cingulotomy, anterior capsulotomy, or sub-caudate tractotomy, are designed to interrupt the neural circuit implicated in OCD (Brown et al., 2016). For example, cingulotomy targets the anterior cingulate cortex, which is a critical node in the circuit. By disrupting this region, the input from the frontal cortex into the papez circuit and limbic system, associated with anxiety and emotional symptoms, is altered. This interruption can lead to a reduction in obsessive and compulsive behaviors. Similarly, procedures like anterior capsulotomy and sub-caudate tractotomy aim to block fronto- thalamic fibers, which may mediate the obsessive and compulsive components of OCD. These surgeries effectively "disconnect" parts of the neural circuit, disrupting the aberrant signaling thought to contribute to the disorder's symptoms.

A specific hypothesis proposed by Baxter in 1992 suggested that hyperactivity in this neural loop originates from a malfunctioning caudate nucleus. According to this model, the caudate nucleus, a key component of the striatum, fails to properly inhibit the inhibitory output from the globus pallidus to the thalamus. This dysfunction is driven by "worry inputs" from the orbitofrontal cortex, which sends excessive signals to the caudate nucleus. As a result, there is an overabundance of thalamic output, affecting other brain regions involved in the experience of OCD symptoms, particularly the orbitofrontal region. This overactivity in the neural loop is thought to contribute to the persistence of obsessions and compulsions.

However, it's important to note that while this theory has gained support, researchers like Baxter et al. caution that the underlying neurophysiology of OCD symptoms may involve structures that have yet to be identified. Neuroimaging techniques have their limitations, and it's possible that decreased metabolic activity in specific brain regions or small neural fields with metabolic hyperactivity may not be detected by current

methods. Furthermore, compensatory changes in neighboring structures might mask abnormalities in affected areas.

In summary, the neural circuitry theory of OCD provides a valuable framework for understanding the neurobiological basis of the disorder. It suggests that disruptions in a complex network of brain regions can give rise to the obsessions and compulsions characteristic of OCD. Neurosurgical interventions that target these circuits have shown promise in alleviating symptoms for individuals who do not respond to other treatments. However, ongoing research is needed to uncover the full complexity of OCD's neurobiology and to develop more effective interventions for this challenging condition.

Neurotransmitters: The serotonin system is a key player in the manifestation of OCD symptoms. This belief is supported by extensive research showing the effectiveness of Selective Serotonin Reuptake Inhibitors (SSRIs) in alleviating OCD symptoms (Stein, 2002). Serotonin, a neurotransmitter, is involved in mood regulation and anxiety modulation, making it a central focus in understanding OCD's neurobiology. Studies have consistently shown that enhancing serotonergic neurotransmission through SSRIs can lead to symptom relief in individuals with OCD. This suggests that serotonin dysregulation may contribute to the development and persistence of OCD symptoms (Stein, 2002). Furthermore, investigations into the pharmacology, genetics, and neuroimaging of OCD have highlighted the role of serotonin receptor 5-HT in the disorder (Stein, 2002). This receptor's involvement underscores the complexity of OCD's neurobiological underpinnings, where multiple factors interact to influence the disorder's expression and severity.

Genetics plays a significant role in the development of OCD. Researchers have identified various genetic factors that contribute to the disorder's etiology. One prominent genetic aspect involves the impact of glutamate neurotransmission, a critical excitatory neurotransmitter system in the brain. The SLC1A1 gene, located on chromosomal region 9p24, is of particular interest in OCD research. This gene encodes the excitatory amino acid carrier EAAC1 and is expressed in key brain regions, including the cerebral cortex, striatum, and thalamus (Arnold et al., 2006). Glutamatergic neurotransmission, influenced by SLC1A1, has been implicated in the

development of OCD. Hemmings et al. (2008) conducted a comprehensive analysis of interconnected neurotransmitter and signaling pathways to explore the role of various functional genetic variants in OCD. Their study assessed specific genetic variants and identified certain genotypes that increase the risk and severity of OCD. This highlights the genetic complexity of OCD, where multiple genes and their interactions contribute to the disorder's manifestation.

OCD has been linked to Tourette's syndrome, a neurological disorder typically emerging in childhood (Rapoport, 1986). This connection has raised the hypothesis of a familial link between OCD and tic disorders (Grados et al., 2001). It suggests that OCD may share an underlying genetic basis with tic disorders, leading to commonalities in their development and expression (Leonard et al., 1992; Grados et al., 2001).

The hypothesis that abnormal serotonergic neurotransmission serves as the foundation for OCD emerged from the unique effectiveness of drugs like clomipramine and SSRIs, which impact serotonin reuptake. These drugs are known to alleviate OCD symptoms by enhancing serotonergic activity in the brain. However, inconsistencies in this theory suggest that serotonin dysregulation may not be the sole cause of OCD symptoms. It is crucial to acknowledge that while enhancing serotonergic neurotransmission can benefit individuals with OCD, it does not definitively establish serotonin abnormalities as the exclusive cause of OCD symptoms. The complexity of OCD, particularly when comorbid conditions such as Tourette's syndrome, tics, and schizotypal personality disorder are present, suggests that other neurotransmitter systems, particularly dopaminergic neurons, may also play a role in the disorder's neurobiology. OCD's neurobiological basis is intricate and multifaceted, involving various neurotransmitter systems and genetic factors. While serotonin dysregulation appears to be a contributing factor, it is only one piece of the puzzle. The interplay between genetics, glutamate neurotransmission, and comorbid conditions adds layers of complexity to our understanding of OCD's development and expression.

Further research is imperative to elucidate the precise mechanisms underlying OCD. The field of OCD neurobiology continues to evolve, and ongoing studies aim to unravel the intricate web of factors that contribute to this challenging and often debilitating

disorder. A holistic understanding of OCD's neurobiological foundations is essential for developing more targeted and effective treatments, ultimately improving the lives of individuals affected by the disorder.

Neural Pathways: Research into the biological underpinnings of Obsessive-Compulsive Disorder (OCD) has evolved from molecular investigations to a more structural perspective, shedding light on the neural pathways and regions associated with the disorder. This shift in focus has allowed researchers to explore the impact of conditions such as birth trauma, encephalitis, head injuries, and seizures on the development of OCD. Additionally, it has led to the identification of specific brain regions, including the basal ganglia, cingulate gyrus, and prefrontal cortex, which play a crucial role in OCD's onset and expression.

Studies have shown a connection between conditions that result in brain damage and the development of OCD (Hollander et al., 2008; Berthier et al., 1996). Notably, damage to certain brain regions has been linked to the onset of OCD, emphasizing the importance of understanding the neural pathways involved in the disorder (Giedd et al., 1995; Robinson et al., 1995). Among these brain regions, the basal ganglia stands out as a significant contributor to OCD symptoms (Giedd et al., 2000). The basal ganglia's role in motor control and various cognitive functions makes it a key player in OCD's neurobiology. Damage to this region, potentially leading to increased size and inflammation, is believed to contribute to OCD symptoms (Giedd et al., 2000).

Early-onset OCD has been associated with seizures, particularly temporal lobe epilepsy (Whiteside et al., 2004; Saxena et al., 1998; Guehl et al., 2008). Individuals with OCD often exhibit heightened activity in specific brain regions, including the caudate nucleus and orbitofrontal cortex. These regions are interconnected through the basal ganglia, involving two pathways: the direct (excitatory) and indirect (inhibitory) pathways. OCD may result from overactivity of the direct pathway, with modulation by the orbitofrontal cortex, leading to an imbalance that contributes to OCD behaviors (Saxena et al., 1998). Furthermore, both the orbitofrontal cortex and basal ganglia receive input from serotonergic terminals, further implicating serotonin in OCD's neurobiology (Lavoie & Parent, 1990).

Positron Emission Tomography (PET) studies focused on OCD have consistently reported increased metabolism or blood flow in specific brain regions, including the orbitofrontal and anterior cingulate cortex, as well as the head of the caudate nucleus (Sanz et al., 2001). These findings suggest heightened activity in regions associated with emotional processing and cognitive control in individuals with OCD. Functional magnetic resonance imaging (fMRI) studies have further substantiated the link between certain brain regions and the manifestation of OCD symptoms (Rotge et al., 2008). For example, a study by Jung et al. (2009) using fMRI found increased activity in brain regions responsible for processing biological motion, such as the superior and middle temporal gyrus, in individuals with OCD. This heightened activity in regions associated with perceptual and cognitive processes provides valuable insights into the neural basis of OCD symptoms. Additionally, research by Choi et al. (2006) identified a volume reduction in the anterior part of the superior temporal gyrus, specifically the planum polare, as a significant factor in the pathophysiology of OCD. This structural abnormality underscores the importance of considering both structural and functional brain differences in understanding the neural basis of OCD.

In conclusion, research into the biological underpinnings of OCD has shifted towards a more structural perspective, uncovering the role of specific brain regions and neural pathways in the disorder. Conditions such as brain damage and seizures have been associated with the development of OCD, highlighting the intricate interplay between neural circuitry and OCD symptoms. Neuroimaging studies have provided valuable insights into the heightened activity and structural abnormalities in key brain regions linked to OCD, further advancing our understanding of the disorder's neurobiological foundations.

1.8.2 : Psychodynamic

Psychodynamic theories, rooted in the work of Sigmund Freud and his followers, offer an intriguing perspective on the aetiology and manifestation of Obsessive-Compulsive Disorder (OCD). These theories propose that OCD may be on a continuum of human experience, where individuals employ defence mechanisms to cope with daily anxiety

and life's challenges. When these defence mechanisms fail, anxiety related to specific stimuli remains unopposed, leading to the emergence of OCD symptoms.

In 1895, Freud introduced the term "Obsessional Neurosis" to describe a regression from the oedipal stage to earlier pre-genital phases of development. In this view, OCD represents a return to earlier developmental stages through the use of defence mechanisms such as emotion isolation, undoing, and displacement. The mechanism of isolation of affect involves separating the affective or emotional component from the thought that causes anxiety. Although the emotional component is diminished, it still exists in the mind. However, it becomes detached and can attach itself to any neutral thought. This association transforms a previously neutral thought into one that induces anxiety, ultimately evolving into an obsession. Compulsions, according to psychodynamic theory, may result from the defence mechanism of undoing. This mechanism allows individuals to avoid the unpleasant or feared consequences of their obsessions. In essence, compulsions serve as a way to undo or counteract the distressing thoughts or impulses associated with obsessions.

Freud (1909) suggested that individuals with OCD often experience a sense of hypermorality, characterized by an exaggerated adherence to moral principles. Psychodynamic theories propose that this hypermorality is, in part, a result of reaction formation against latent aggressive impulses. Reaction formation is a defence mechanism wherein undesirable desires or urges are suppressed by adopting opposite desires and behaviors. In the case of OCD, this may manifest as hypermorality and excessive responsibility.

Psychodynamic theories posit that latent aggression, which refers to hostility or aggression towards others that is not openly expressed but may appear in fantasies or disguised forms not consciously recognized, plays a central role in OCD. It is suggested that the hypermorality observed in individuals with OCD is, in part, an attempt to counteract these latent aggressive impulses. Despite attempts to resist latent aggressive impulses, these efforts are often only partially effective. This leads to the recurrence of aggressive, sexual, or blasphemous thoughts as intrusive obsessions in the consciousness of individuals with OCD. These intrusions are frequently perceived as ego-alien, particularly when individuals view themselves as highly moral. According

to psychodynamic theories of OCD, obsessions and compulsions are manifestations of underlying unconscious conflicts that individuals are trying to suppress, resolve, or manage. These conflicts arise when unconscious desires, often related to sexual or aggressive drives, clash with socially acceptable behavior. When these conflicts become intensely distressing or painful, individuals may resort to coping indirectly by redirecting these conflicts towards more manageable tasks, such as compulsive behaviors like hand-washing, checking, or ordering.

Some psychodynamic treatments suggest that bringing an individual's unconscious conflicts to light through psychoanalysis or other therapeutic techniques can help alleviate their OCD symptoms. The idea is that by exploring and addressing the underlying conflicts, individuals can gain insight into the roots of their obsessions and compulsions, making them more amenable to change.

In conclusion, psychodynamic explanations of OCD offer a unique perspective on the disorder's origins and mechanisms. These theories suggest that OCD may arise from unconscious conflicts and the employment of defence mechanisms to manage anxiety. Understanding how these conflicts and mechanisms contribute to the development and persistence of OCD can potentially inform therapeutic approaches aimed at addressing the root causes of the disorder.

1.8.3 : Behavioral

According to the behaviourist school of thought, obsessions are seen as conditioned stimuli associated with anxiety. Compulsions are behaviours that an organism learns in order to reduce the level of anxiety occurring as a result of obsessions. The successful decrease in anxiety serves as a positive reinforcement for the compulsive act and becomes a stable, learned behaviour. At the same time, it only maintains the fear or anxiety eliciting properties of the obsessions. This sets up a cycle of even more intense obsessions and compulsions. Although the explanations provided by the behavioural theory may not adequately explain the cause or onset of OCD, they are one of the most effective treatments available. The earliest behavioural explanations and intervention approaches for OCD emphasized the role of overt compulsive behaviours. Mowrer's

(1960) two-stage theory of fear and avoidance formed the basis of the behavioural theory of OCD. The first stage involves the establishment of obsessional fears through classical conditioning. A neutral stimulus elicits discomfort through frequent or repeated pairing with an aversive stimulus. In the second stage, the individual may recognise that performing certain behaviour reduces fear or anxiety. This behaviour becomes negatively reinforced as it relieves the anxiety of obsessional thoughts. Classical conditioning is essentially a mechanism through which obsessions gain their property of eliciting anxiety or fear. It assumes that an external agent inducing trauma or stress must be present in order to cause the obsessions. Research has generated a considerable amount of evidence regarding the presence of an external trigger for provoking obsessions (Roper et al., 1973; cited in Clark, 2004). However, these findings have not been consistently supported, and 20-30% of obsessions do occur without an external trigger (Rachman & Hodgson, 1980). Although stressful life events may play a role and influence the manifestation and appearance of OCD symptoms, they are unlikely to precede the onset of symptoms immediately. Thus, overall findings have not been consistent regarding the acquisition of obsessions through exposure to a traumatic event. An important prediction of the behavioural model is that individuals prone to obsessions are more likely to be responsive or sensitive to unwanted intrusive thoughts (Clark, 2004).

1.8.4 Cognitive-Behavioral

Cognitive-behavioral models are among the most prominent theoretical models for OCD. Several limitations of the behavioural models, such as the absence of a history of relevant conditioning experiences and the simplicity of the model, which does not account for factors such as the content of the obsessions and changes in obsessions over a period of time led to the re-examination of these models and inclusion of cognitive explanations. The current cognitive models of OCD have risen from the foundation of two important models. The first such model was that proposed by Carr in 1974. According to him, obsessions arose when a person appraised a relatively neutral situation as potentially threatening and overestimated the likelihood of an unpleasant outcome. Compulsions are engaged in as they provide relief, with the belief that they

aid in preventing the untoward consequence. However, a major limitation of this model was its inability to explain the cause of such faulty appraisals. Another model was proposed by McFall and Wollersheim in 1979 which suggested two appraisal processes. Primary appraisal involved perceiving the situation to be unrealistically threatening and secondary appraisal focuses on combating the threat as well as the emotions accompanying the threat appraisal. The Obsessive-Compulsive Cognitions Working Group has outlined six cognitive belief domains as follows: **Overinflated responsibility and exaggerated perception of threat:** This domain revolves around the belief that one holds the ability to influence or prevent negative outcomes. Viewing an intrusive thought through the perspective of personal responsibility, where there's a sense of being accountable for causing harm to oneself or others, results in emotional distress and triggers attempts to alleviate the assumed responsibility. Another noteworthy conviction in OCD revolves around the estimated probability and outcomes of unfavorable events. For instance, individuals may hold beliefs such as "*I believe the world is a dangerous place*" or "*Bad things are more likely to happen to me than to others.*" This domain also includes beliefs about one's coping abilities, a low tolerance for uncertainty, and an intolerance for anxiety and discomfort. **Perfectionism and discomfort with uncertainty:** Modern cognitive theorists have also proposed that perfectionism plays a role in understanding OCD. Research has indicated a link between perfectionism and obsessive-compulsive symptoms, even after considering factors such as responsibility and depression. While considered a significant trait, perfectionism alone is not sufficient for the development of OCD symptoms. Intolerance for uncertainty is frequently observed in individuals who struggle with decision-making. They tend to be more cautious, taking longer to categorize objects, and they often seek repeated information. When they do make a decision, they experience greater doubt about its correctness and feel uncertain about new or changing situations, perceiving them as potentially dangerous. This belief may also encompass challenges in handling strong emotions and a lack of confidence in their ability to cope with ambiguous circumstances. **Significance and control of thoughts:** This belief revolves around the idea that the mere presence of a thought signifies its importance. Ordinary unwanted intrusive thoughts can transition into clinical obsessions if they are misconstrued as personally significant and menacing, especially if their content clashes

with the individual's values. This can lead to heightened obsessions as both internal cues (like anxiety) and external cues (such as certain objects) may be interpreted as threatening, rather than neutral (for example, perceiving intense physical sensations as a sign of losing control and potential harm). This, in turn, leads to a heightened persistence of obsessions, as attempts at avoidance and neutralization reinforce the catastrophic misinterpretation instead of providing disconfirmation. The notion of thought-action fusion, recognized as a cognitive bias, plays a role in this misinterpretation of thought significance. It involves individuals perceiving their thoughts as having the same psychological impact as actual actions or holding the belief that their thoughts about potential misfortunes can actually heighten the likelihood of those misfortunes happening (Rachman et al., 2003).

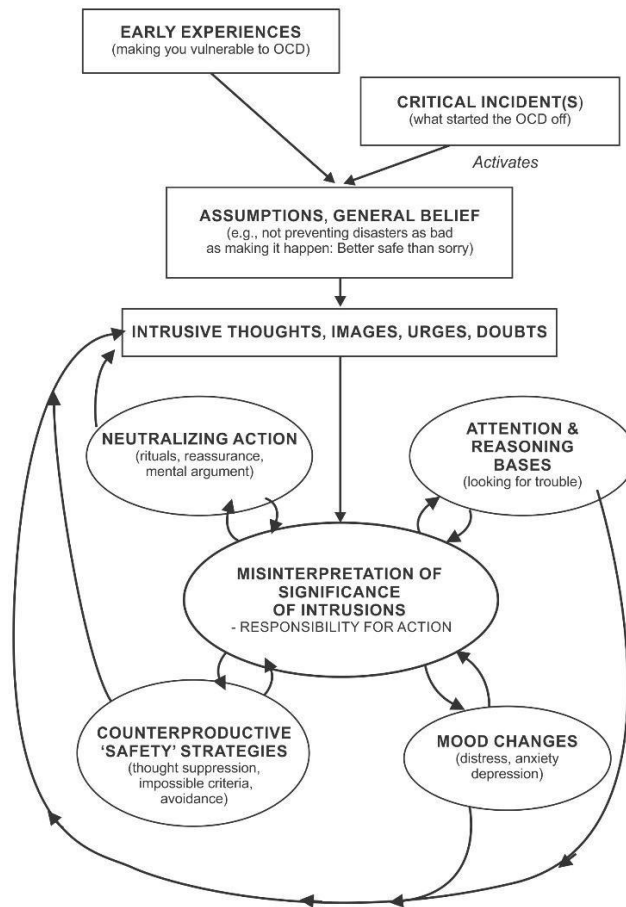
Salkovskis model: Paul Salkovskis' model of Obsessive-Compulsive Disorder (OCD) offers valuable insights into understanding the cognitive processes that underlie the development and maintenance of OCD symptoms. According to this model, obsessions are regarded as normal thoughts with an intrusive quality. However, what distinguishes them from ordinary intrusive thoughts is the interpretation and the role of responsibility ascribed to them.

Salkovskis and his colleagues (1999) propose a clear distinction between common intrusive thoughts and pathological obsessions. The key factor that sets them apart lies in how these intrusions are interpreted. In other words, it's not the content of the thoughts itself but rather the significance attributed to them by the individual. At the heart of Salkovskis' theory is the concept of an inflated sense of responsibility. In the context of OCD, responsibility is defined as the belief that an individual possesses the power to either bring about or prevent outcomes that are subjectively perceived as highly negative and crucial. These outcomes can have real-world consequences or be seen from a moral perspective (Salkovskis et al., 1996, as cited in Salkovskis et al., 1999, p. 1058). Salkovskis' model delineates responsibility into two levels. First, there are responsibility beliefs. These beliefs cause individuals to misinterpret their own mental processes as signals of personal obligation. In other words, they believe that their thoughts or actions are directly linked to the prevention of harm or undesirable

outcomes. For example, an individual might believe that thinking about a loved one's accident will somehow cause it to happen unless they engage in specific rituals or compulsions. The second level involves responsibility appraisals. This pertains to how individuals assess their intrusive thoughts. They assume personal responsibility for preventing harm to themselves or others, which leads to a heightened sense of anxiety and restlessness. This misinterpretation of thoughts and the ensuing distress are influenced by underlying beliefs that may have developed due to prior life experiences. Importantly, Salkovskis' model acknowledges that certain events or situations can trigger previously dormant responsibility beliefs. These events may be reminiscent of earlier experiences where the individual perceived a connection between their thoughts and undesirable outcomes. This can activate the individual's pattern of thought, leading to heightened anxiety and the reinforcement of compulsive behaviors. In practical terms, Salkovskis' model highlights the pivotal role of responsibility beliefs and appraisals in the maintenance of OCD symptoms. It underscores that individuals with OCD may engage in compulsive behaviors not because they want to but because they genuinely believe they are responsible for preventing harm or catastrophic events. These behaviors serve as a way to alleviate the distress caused by their obsessions.

Understanding the cognitive processes outlined in Salkovskis' model has significant implications for the treatment of OCD. Cognitive-behavioral therapies (CBT), particularly exposure and response prevention (ERP), are often used to challenge and modify these distorted beliefs and appraisals. ERP involves exposing individuals to their feared situations or thoughts without allowing them to engage in their usual compulsions. Over time, this helps individuals learn that their obsessive fears are unfounded and that they are not responsible for preventing harm.

Salkovskis' model provides a comprehensive framework for understanding the cognitive underpinnings of OCD. It emphasizes the role of responsibility beliefs and appraisals in the development and persistence of obsessive thoughts and compulsive behaviors. By addressing these cognitive distortions through therapeutic interventions, individuals with OCD can achieve significant symptom relief and improved quality of life. The model is depicted in Figure 1.2



Integrated schematic model describing the cognitive hypothesis of the origins and maintenance of obsessional problems.

Figure 1.2: Salkovskis et al.'s model of OCD (1998) as cited in Salkovskis et al. 1999

Intrusions function as an automatic process and can be in the form of images, thoughts, impulses and doubts. They are also related to the current situation and have a role in problem-solving and creativity. The model also stresses the importance of early experiences. Salkovskis et al. (1999) identified several early experiences that contribute to the development of an inflated sense of responsibility. These experiences include: 1) Encouragement of a sense of responsibility for preventing threats during childhood, whether deliberately or implicitly, by significant individuals in the child's life. This can

lead to a justified belief in an exaggerated sense of responsibility. 2) Adoption of rigid and extreme codes of conduct and duty, which may contribute to an increased sense of responsibility. 3) Childhood experiences in which sensitivity to responsibility arises from being overly protected from it, often due to over-indulgence by significant others. Alternatively, it could result from the implication of incompetence on the part of others around the child. 4) Specific events or a series of events in which an individual's action or inaction genuinely played a significant role in causing adverse consequences, not only for themselves but also for others. 5) Specific events in which an individual's action or inaction was erroneously perceived as causing adverse consequences, further reinforcing their sense of responsibility. These early experiences can shape an individual's perception of responsibility and contribute to the development of obsessions and compulsions in OCD.

Rachman model: Understanding the cognitive processes that underlie the development and persistence of OCD is crucial for effective treatment and intervention. One prominent theory in this regard is the cognitive theory of OCD proposed by Rachman (1993, 1997, 1998). Rachman's theory builds upon the works of Clark (1986) and Salkovskis (1985), offering valuable insights into the cognitive mechanisms that drive OCD symptoms. In this comprehensive analysis, we delve into the intricacies of Rachman's cognitive theory of OCD, exploring its key components, implications for treatment, and relevance in the broader context of understanding OCD. At the core of Rachman's cognitive theory of OCD is the idea that clinical obsessions arise from the catastrophic misinterpretation of the meaning behind one's thoughts, mental images, or impulses. In essence, individuals with OCD assign a heightened and often irrational significance to their intrusive thoughts. These obsessions persist as long as these misinterpretations continue to exist, but their intensity could decrease if neutralizing behaviors weaken these misconceptions (Rachman, 1997). One crucial aspect of Rachman's theory involves magnifying the importance of intrusive thoughts, leading individuals to believe that these thoughts reveal critical aspects of their moral character. This magnification process plays a pivotal role in the development and maintenance of obsessions. Essentially, individuals with OCD perceive their thoughts as carrying moral implications or reflecting their true selves. The conversion of neutral stimuli into

perceived threats happens solely when the content of the intrusive thought carries a specific significance for the individual (Rachman, 1998). Rachman's theory suggests that individuals with OCD tend to perceive a broad spectrum of typically neutral stimuli as menacing due to their heightened sensitivity to the significance of intrusive thoughts (Clark, 2004). This expansion of threat perception contributes to the pervasive and intrusive nature of obsessions in OCD. Even innocuous stimuli can become triggers for distressing thoughts and subsequent compulsive behaviors. Rachman's theory also acknowledges that in addition to external cues, internal triggers can stimulate obsessional thoughts (Clark, 1986, as referenced in Rachman, 1998). Internal triggers can encompass emotional states, bodily sensations, or other internal experiences that elicit obsessions. This recognition of internal triggers adds complexity to the understanding of OCD and highlights the need to consider the interplay between external and internal factors in the disorder.

A central cognitive process elucidated by Rachman in the context of OCD is 'Thought-Action Fusion' (TAF). This phenomenon, first coined by Rachman and Shafran (1999), involves the fusion of thoughts and actions, where individuals treat thoughts related to harm as equivalent to actions and assume equal responsibility for both thinking and doing (Rachman, 1993). TAF can be subdivided into two components: Moral Thought-Action Fusion (TAF-M) and Likelihood Thought-Action Fusion (TAF-L) (Rachman et al., 1995; Shafran et al., 1996). Moral Thought-Action Fusion pertains to the belief that having an unacceptable thought carries nearly the same moral weight as actually engaging in the behavior (Shafran & Rachman, 2004). In other words, individuals with OCD may perceive a morally unacceptable thought as tantamount to committing the immoral act itself. This blurring of the line between thoughts and actions intensifies the distress associated with obsessions and fuels the compulsion to neutralize these distressing thoughts. Likelihood Thought-Action Fusion involves the belief that the occurrence of a thought increases the likelihood of a specific negative event happening (Thordarson & Shafran, 2002). Individuals with OCD might believe that merely thinking about a particular catastrophe makes it more probable, even if there is no rational connection between the thought and the event. This distorted belief further perpetuates the cycle of obsessions and compulsions.

Rachman's cognitive theory of OCD provides a comprehensive framework for understanding the cognitive intricacies of the disorder. It sheds light on the catastrophic misinterpretation of thoughts, the magnification of intrusive thoughts' importance, and the role of thought-action fusion in OCD. By addressing these cognitive distortions through therapeutic interventions like ERP, individuals with OCD can gain relief from their symptoms and regain control over their lives. Moreover, Rachman's theory underscores the need for a holistic approach to understanding OCD, encompassing both external and internal triggers that contribute to the disorder's complexity. The model is depicted in Figure 1.3

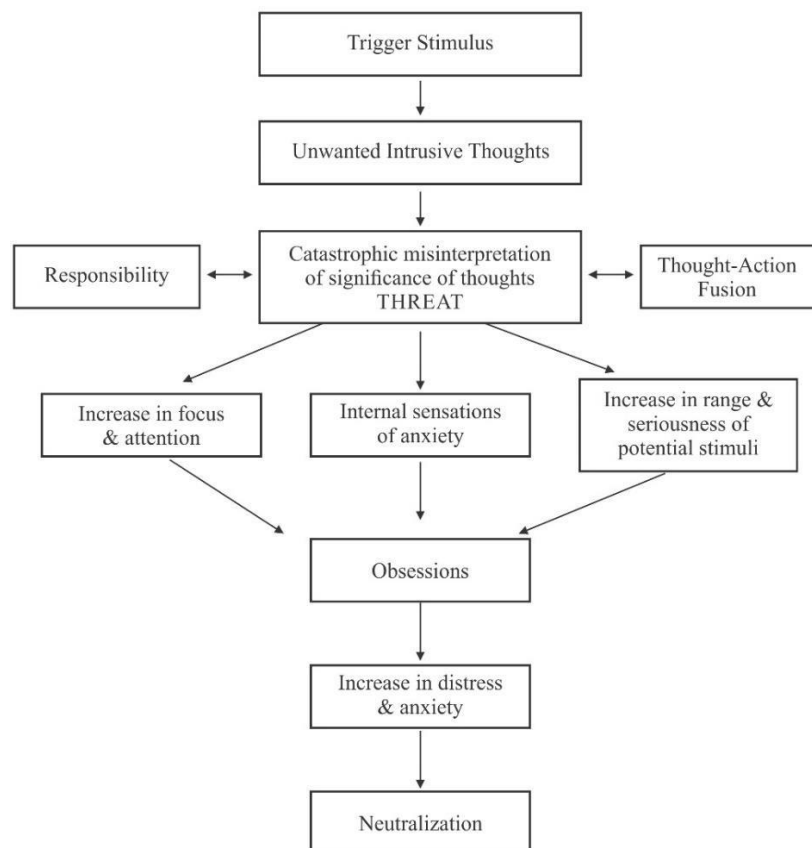


Figure 1.3: Rachman model (1997) of OCD as cited in Yorulmaz, 2007

Clark and Purdon model: Clark and Purdon (1993) introduced a cognitive model of OCD that emphasizes the significance of the need for control over thoughts as a crucial

aspect of the disorder. At the core of Clark and Purdon's cognitive model of OCD is the concept that individuals with OCD attach immense importance to the need for control over their thoughts. This need for control stems from a desire to prevent distressing and intrusive thoughts from occurring. Individuals with OCD often fear that these intrusive thoughts, if left unchecked, may lead to catastrophic outcomes or harm to themselves or others. Consequently, they engage in compulsive behaviors to regain a sense of control and alleviate their anxiety. One critical distinction between obsessions and other types of negative thoughts is that obsessions are typically ego-dystonic in nature. Ego-dystonic thoughts are those that are incongruent with an individual's self-concept, values, and moral ideals. For example, obsessions about causing harm to others may directly contradict an individual's fundamental values of kindness and non-violence. This ego-dystonic nature of obsessions intensifies the distress experienced by individuals with OCD, as the thoughts are perceived as being in conflict with their true selves.

While some obsessions may initially appear ego-syntonic, meaning they align with an individual's self-concept, a closer examination reveals their ego-dystonic nature. For instance, a checking compulsion may seem ego-syntonic, as it could be interpreted as reflecting an individual's genuine concern for the safety of others. However, it is, in fact, ego-dystonic because it does not align with the individual's self-concept as a responsible person. This distinction is crucial in understanding the internal conflict experienced by individuals with OCD, as their obsessions clash with their deeply held values and self-identity. In Clark and Purdon's model, the need for thought control leads individuals with OCD to make excessive attempts to manage and suppress unwanted intrusive thoughts. These efforts may include mental rituals, such as repeated prayers or counting, or behavioral compulsions, such as checking or washing. Paradoxically, the more individuals with OCD try to control these thoughts, the more these thoughts intensify and persist. This heightened focus on thought control serves to perpetuate the obsessive cycle, as the anxiety associated with failing to control the thoughts increases.

Purdon and Clark (1999) expanded upon their cognitive model by introducing two additional factors: ego-dystonic thought appraisal and the importance of thought

control. Ego-dystonic thought appraisal refers to the individual's evaluation of their intrusive thoughts as distressing and unacceptable. In other words, individuals with OCD perceive their intrusive thoughts as fundamentally incompatible with their self-concept and values. This appraisal intensifies the emotional distress associated with obsessions and reinforces the need for control. The importance of thought control is another critical factor introduced by Purdon and Clark (1999). This factor underscores the immense stake individuals with OCD have in not having the distressing thoughts. The perceived consequences of allowing these thoughts to persist are often catastrophic and may involve harm to oneself or others. This heightened importance attributed to thought control motivates individuals to engage in compulsive behaviors to prevent the

Clark and Purdon's cognitive model of OCD provides valuable insights into the cognitive processes that drive the disorder. Their emphasis on the need for control over thoughts, the ego-dystonic nature of obsessions, and the role of thought control efforts adds depth to our understanding of OCD. By addressing these cognitive distortions through therapeutic interventions, individuals with OCD can gain relief from their symptoms and regain control over their lives. Clark (2004) postulated two levels of the appraisal process - primary and secondary as illustrated in Figure 1.4.

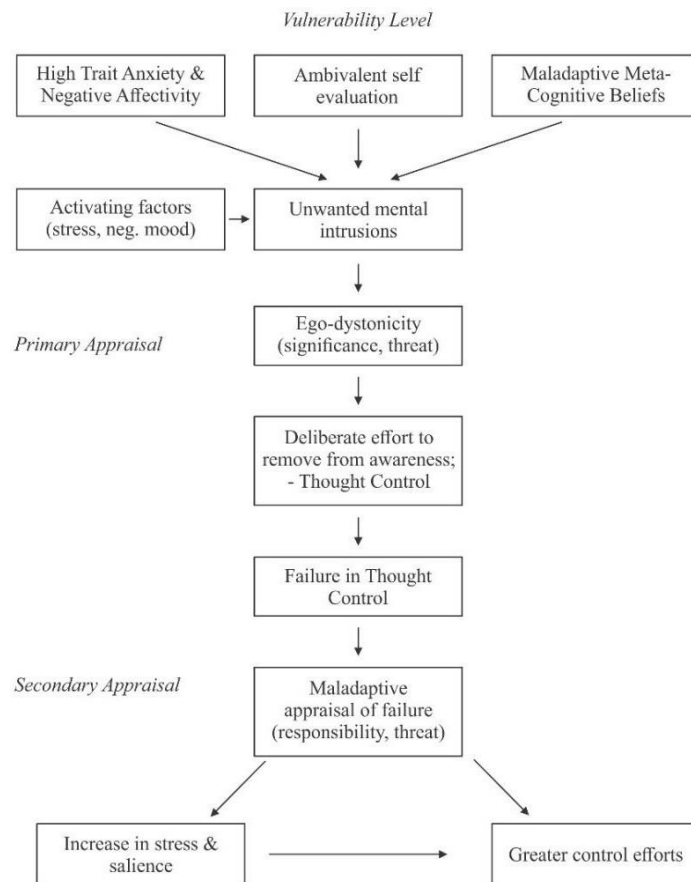


Figure 1.4: Clark (2004) model of OCD, as cited in Yorulmaz, 2007

Metacognitive model: Theoretical frameworks and subsequent research in metacognition emerged predominantly as a result of developments occurring in the field of cognitive developmental psychology. Clark and Purdon (1995) revised the earlier cognitive frameworks and focused on the role of metacognitive processes (Irak & Tosun, 2008). The outcome of a potential failure is misconstrued while trying to control for the unwanted intrusive cognition. They believed that an investigation into the metacognitive processes would facilitate a deeper understanding of OCD. This model was then reformulated by Wells and Mathews (1996) and Wells (1995), by emphasizing the importance of metacognitive factors in psychological disorders. The metacognitive model of OCD, which was introduced by Wells and Mathews (1996) and is also referred to as the 'Self-Regulatory Executive Function' (S-REF) model, considers metacognitive

factors as a component of the information processing mechanisms responsible for the development and persistence of psychological conditions. Metacognition can be defined as the process through which we think about thinking and knowing what we know and do not know. Metacognitive processes govern the control and interpretation of thinking. It can be defined as a cognitive process or a body of knowledge involved in evaluating, appraising and monitoring our thought processes. The metacognitive system serves as a mechanism to regulate and control the self by means of beliefs about the self. Wells and Mathews (1996) hypothesise that such metacognitive factors may play a significant role as the precipitating and perpetuating factors of various conditions, especially generalised anxiety disorder and OCD. Distortions in metacognitive beliefs lead to a negative interpretation of obsessive thoughts. These distortions include beliefs about the meaning and harmful consequences that result from having a particular thought. In effect, disturbances in the functioning of the S-REF may bring about anxiety and ruminations. Metacognition also plays an important role in choosing strategies for reducing anxiety created by obsessions, which are guided by negative and positive beliefs about the utility and effectiveness of performing compulsive rituals. Metacognitive components guide an individual to focus more on information consistent with the disorder or with their obsessions. This model is depicted in Figure 1.5. The fundamental assumption of this model is that individuals suffering from a psychological disorder have beliefs that consist of certain metacognitive components that influence and determine the outcome of activities like thinking and coping. Positive and negative beliefs about thinking, cognitive confidence, cognitive self-consciousness and the need for control guide the appraisals. A positive belief could be, '*I must worry in order to perform well*', while a negative one could be, '*My thoughts are beyond my control*'. However, certain aspects of the model seem to have been present in subtle forms in CBT models of OCD. The evaluation or faulty perception of the intrusive thought can be thought of as being a metacognitive process.

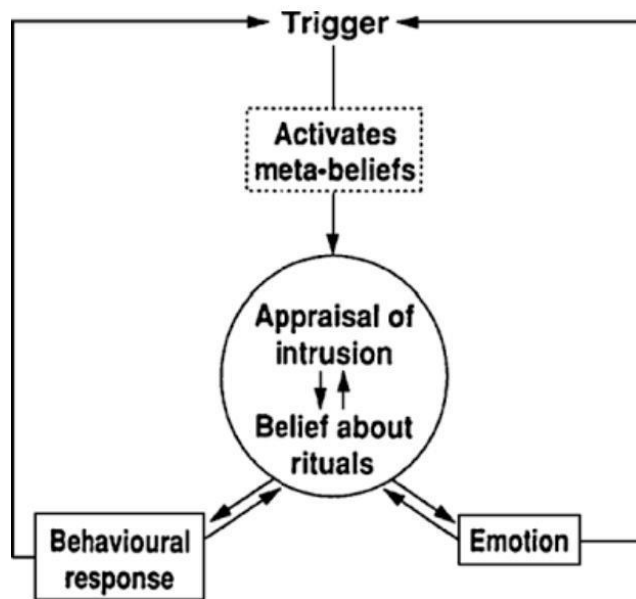


Figure 1.5: The Metacognitive Model of OCD (Wells 1995)

1.8.5 Psychosocial Factor

The causes of OCD may also involve environmental factors like stress, trauma, and even microbial influences. Stress is a well-known trigger for OCD symptoms, often associated with major life changes such as divorce, loss of a loved one, academic challenges, or relationship difficulties. Certain personality traits may also be more or less common in individuals with OCD and could contribute to its development. For instance, a study by Kim et al. (2009) found that individuals with OCD tend to have elevated levels of harm avoidance traits but lower levels of self-direction (the ability to adapt to new situations) and reward dependency (the tendency to respond to social rewards like approval).

Interpersonal factors play a significant role in both the onset and maintenance of OCD. According to the interpersonal theory, individuals with OCD often believe they are a burden to themselves and society because they are aware of their irrational behaviors but cannot control them. This self-blame affects their interpersonal behaviors and relationships (Shapiro & Stewart, 2011). Consequently, individuals with OCD often report lower levels of perceived social support compared to healthy individuals. Studies

have also shown that OCD symptoms can improve when the patient's family, friends, and loved ones have healthy relationships and supportive communication with them (Steketee, 1997).

Furthermore, individuals with OCD tend to employ maladaptive coping strategies, such as emotional isolation and denial of facts related to their obsessions. Most of these coping strategies are not adaptive (Mortiz et al., 2018). Several studies have revealed that individuals with OCD engage in thought suppression and emotional avoidance when confronted with thoughts and emotions associated with their obsessions (Allen & Barlow, 2009). As a result of their irrational behavior, individuals with OCD often anticipate negative outcomes for everything, which negatively affects their interpersonal relationships. However, those with OCD who utilize adequate social support and adaptive coping mechanisms may be better equipped to maintain healthy interpersonal relationships.

1.9 Treatment

OCD is commonly treated with medication, psychotherapy, or a combination of both. While many individuals with OCD respond well to treatment, some may continue to experience symptoms. It's important to note that early treatment for OCD can help alleviate symptoms and minimize the disruptions it can cause in one's life. Unfortunately, many individuals with OCD go through a lengthy process of seeking treatment and may consult multiple healthcare professionals before receiving a correct diagnosis. This diagnostic challenge can be compounded by feelings of embarrassment or secrecy about their symptoms and by the presence of other co-occurring conditions like depression (Koran et al., 2007).

Pharmacological Treatment: The most commonly practised and effective pharmacological treatments for OCD include: **Selective Serotonin Reuptake Inhibitors (SSRIs)** like Fluoxetine (Prozac), Sertraline (Zoloft), Fluvoxamine (Luvox), Paroxetine (Paxil), Citalopram (Celexa), and Escitalopram (Lexapro): SSRIs are the most commonly prescribed medications for OCD. They work by increasing the

availability of serotonin in the brain, which helps regulate mood and anxiety. Multiple studies have demonstrated the efficacy of SSRIs in reducing OCD symptoms. The standard practice is to start with a low dose and gradually increase it. Higher doses are often required for OCD treatment compared to treating depression. Treatment with SSRIs typically lasts for at least 8 to 12 weeks to determine their effectiveness. It is often recommended to continue treatment for 6 to 12 months or longer to prevent relapse. SSRIs can reduce OCD symptoms by about 40-60% (Kozak et al., 2000; Pigott & Seay, 1999; Sánchez-Meca et al., 2014). They are generally well-tolerated, but side effects may include nausea, insomnia, sexual dysfunction, and weight gain.

Clomipramine (Anafranil): Clomipramine is a tricyclic antidepressant that specifically targets serotonin reuptake. It was the first medication found to be effective in treating OCD and is still used today, particularly in cases where SSRIs have not been effective or are not tolerated. Clomipramine is associated with more significant side effects than SSRIs, including anticholinergic effects (dry mouth, constipation), weight gain, sedation, and potential cardiac effects. Regular monitoring of serum levels is required (Anthony et al., 2001; Heleniak et al., 2012).

Augmentation Strategies: When SSRIs or clomipramine alone are not effective, augmentation strategies may be employed. This involves adding another medication to the existing regimen. Common augmentation agents include atypical antipsychotics such as risperidone, aripiprazole, or quetiapine, or mood stabilizers like lamotrigine or valproate (Thamby & Jaisooriya, 2019).

Other Antidepressants: In cases where SSRIs and clomipramine are not well-tolerated, other antidepressants like venlafaxine (Effexor) or mirtazapine (Remeron) may be considered (Balachander et al., 2019).

Benzodiazepines: While not typically a first-line treatment for OCD, benzodiazepines like clonazepam (Klonopin) may be prescribed to provide short-term relief from anxiety and insomnia associated with OCD. However, they are generally avoided due to the risk of dependence and withdrawal (Bandelow et al., 2023).

N-acetylcysteine (NAC): Emerging research suggests that NAC, a supplement that influences glutamate levels in the brain, may be beneficial in reducing OCD symptoms, especially in cases where other treatments have failed (Gadallah et al., 2020).

Ketamine and Psychedelic-Assisted Therapy: There is ongoing research exploring the potential benefits of ketamine and psychedelic-assisted therapy for OCD. Some studies have shown promising results, but more research is

needed before these treatments become mainstream (Martinotti et al., 2021). **Deep Brain Stimulation (DBS):** In severe, treatment-resistant cases of OCD, deep brain stimulation, a surgical procedure involving the implantation of electrodes in the brain, may be considered. This is typically a last-resort option (Shaffer et al., 2023).

The choice of medication depends on various factors, including the individual's specific symptoms, comorbid conditions, and treatment response. Medication alone is often not sufficient for the long-term management of OCD, and it is generally recommended in combination with psychotherapy, particularly CBT with ERP, for the best outcomes (Meng et al., 2019).

Psychotherapeutic Treatment:

(a) Cognitive Behavioral Therapy with Exposure and Response Prevention (CBT with ERP): Cognitive-Behavioural Therapy is one type of psychotherapy that has been researched extensively. In the 1960s, American psychotherapists were the ones who initially developed it. Since then, CBT techniques have developed in new and interesting ways. The term cognitive behavioural therapy (CBT) refers to a specific subset of psychotherapies. The concepts of cognitive therapy (CT) and behaviour therapy (BT) are brought together in cognitive behavioural therapy (CBT) (Beck, 1995; Clark & Beck, 2011). The method of treatment that is implemented is determined by the ailment or issue that is being treated. Elements and procedures drawn from both schools of thought are incorporated into therapeutic work. Choosing which school of thought to draw from depends on each patient's circumstances. In spite of this, the fundamental premise upon which therapy is always based is that: what we think, how we feel, and how we behave are all interconnected in some way, and each of these aspects has a significant bearing on the degree to which we are happy and healthy. The "exposure" component of this treatment consists of exposing the patient, either directly or imaginarily in a controlled setting, to the things or situations that trigger the anxious obsessions. Exposure over time to the obsessional signals causes a reduction in the amount of anxiety experienced. After some time, being confronted with the obsessional trigger causes minimal anxiety, if any at all. The term 'habituation' refers to the process of becoming "accustomed to" certain obsessional signals. The '*response*' in "response

prevention" refers to the ritual behaviours that persons with OCD participate in to lessen their levels of anxiety. These behaviours include washing hands, counting, and cleaning. Patients learn to resist the temptation to do rituals as part of the ERP treatment, which eventually enables them to be able to quit engaging in these behaviours altogether (Foa, 2010; Karajgaonkar, 2016). In many circumstances, CBT alone is highly helpful in treating OCD. However, a combination of CBT and medication is required for some individuals to treat the condition. Medication may lower a person's anxiety to the point where they are able to begin therapy and eventually be successful with it. Cognitive Therapy (abbreviated as C), which investigates how we think, and Behavior Therapy (abbreviated as B), which investigates how this influences what we do, are the two evidence-based behaviour treatments that are utilised in cognitive behaviour therapy (abbreviated as CBT). During treatment, various alternative ways of thinking (C) and how this might impact the manner in which we act (B) are considered. As a component of the behavioural approach, exposure and response prevention therapy, also known as ERP, is utilised to investigate alternative approaches to react to obsessive thoughts or uncertainties. Therefore, CBT with ERP is a highly effective and evidence-based treatment approach for Obsessive-Compulsive Disorder (OCD) (Hezel & Simpson, 2019). This therapeutic model combines cognitive and behavioral strategies to help individuals with OCD better manage their symptoms and improve their overall quality of life. The key components and principles of the CBT with ERP model are – **(i) Understanding OCD:** CBT with ERP begins with a comprehensive assessment to understand the nature and severity of the individual's OCD symptoms. This assessment includes identifying obsessions (repetitive, intrusive, and distressing thoughts or mental images) and compulsions (repetitive behaviors or mental acts performed to reduce distress or prevent a feared event). Understanding the specific content and triggers of obsessions and compulsions is crucial in tailoring the treatment plan. **(ii) Psychoeducation:** Education about OCD is a fundamental component of CBT with ERP. Therapists provide clients with information about the nature of OCD, its prevalence, common symptoms, and its impact on daily functioning. This psychoeducation helps individuals develop insight into their condition, reduce self-blame, and recognize that OCD is a treatable mental health disorder. **(iii) Cognitive Restructuring:** Cognitive restructuring focuses on identifying and challenging

irrational or distorted beliefs related to obsessions. Individuals with OCD often hold unrealistic beliefs about the significance of their obsessions or the likelihood of harm occurring if they don't perform compulsions. Through cognitive interventions, clients learn to identify these cognitive distortions and develop more balanced and rational perspectives. **(iv) Exposure and Response Prevention (ERP):** ERP is the cornerstone of CBT with ERP for OCD. It involves systematic and gradual exposure to situations or stimuli that trigger obsessions while simultaneously preventing the corresponding compulsive response. The exposure component is designed to evoke anxiety, while the response prevention component aims to break the cycle of compulsive behaviors. Over time, individuals learn that their anxiety naturally diminishes when they refrain from performing compulsions, leading to habituation and symptom reduction. **(v) Hierarchy Development:** Therapists work with clients to develop an exposure hierarchy, which is a list of situations or scenarios ranked by the level of anxiety they provoke. The hierarchy allows for a structured and gradual approach to ERP, starting with less distressing situations and progressing to more challenging ones as the individual gains confidence and skills. **(vi) Graded Exposure:** Exposure exercises are carefully planned and executed in a graded manner. This means that individuals begin with exposures that provoke moderate anxiety and gradually work their way up to more anxiety-inducing situations. The goal is to help clients confront their fears progressively and build their tolerance for distress. **(vii) Response Prevention:** During exposure, individuals are explicitly instructed not to engage in their usual compulsive behaviors. This might involve resisting the urge to wash their hands, check locks, or seek reassurance from others. Response prevention is crucial in breaking the cycle of obsessions and compulsions and facilitating habituation. Essentially, ERP requires patients to confront anxiety-provoking situations or distressing thoughts while deliberately refraining from their typical responses. Two primary theoretical mechanisms have been proposed to elucidate the effectiveness of ERP: habituation through repeated exposure to responses and extinction by withholding reinforcement for behaviors aimed at reducing anxiety. Both of these mechanisms are rooted in behavioral theory, drawing from classical and instrumental conditioning principles, and are generally predicated on the understanding that OCD is an anxiety disorder (Kircanski & Peris, 2015). **(viii) Homework Assignments:** Between therapy sessions, individuals are assigned homework exercises

that involve practising exposure and response prevention. Consistent practice is essential for reinforcing the skills learned in therapy and achieving lasting symptom reduction. **(ix) Relapse Prevention:** As therapy progresses, clients learn relapse prevention strategies to maintain the gains they've made. They acquire skills to identify early signs of symptom recurrence and implement coping strategies to prevent a full-blown relapse.

Effectiveness of CBT with ERP for OCD: Numerous studies and clinical trials have demonstrated the effectiveness of CBT with ERP in treating OCD. Research consistently shows that a significant proportion of individuals with OCD experience substantial symptom improvement, and many achieve remission when they engage in this therapy. CBT with ERP is considered the gold standard treatment for OCD and is recommended by various clinical guidelines and mental health organizations. It has been shown to be more effective than medication alone, and its benefits are often maintained over the long term, but like any therapeutic approach, it has some shortcomings and limitations. It involves exposing individuals with OCD to their feared situations or triggers, which can lead to intense anxiety. This anxiety can be distressing and may deter some individuals from fully engaging in treatment. Patients with OCD often have strong resistance to the idea of facing their fears and not engaging in compulsive behaviors. This resistance can make it challenging to initiate ERP, and some individuals may drop out of treatment early. ERP typically requires a significant time commitment. Treatment sessions can be lengthy, and individuals are often required to engage in exposure exercises on their own between sessions. This can be burdensome for some patients, especially those with busy schedules. While ERP is effective in reducing symptoms related to specific obsessions and compulsions, it may not always generalize well to all OCD symptoms. Some individuals may find that their symptoms persist in different contexts or with different triggers. Dropout rates for ERP are relatively high. A significant number of clients discontinue treatment prematurely due to the distressing nature of exposure exercises or a lack of motivation to continue.

In conclusion, while Cognitive Behavioral Therapy with Exposure and Response Prevention (CBT with ERP) stands as a widely endorsed and evidence-based treatment

for OCD, it is essential to acknowledge its notable limitations. ERP can be challenging for patients due to the distressing nature of exposure exercises, potentially leading to high dropout rates. Despite its anxiety-inducing and challenging nature, ERP stands as one of the most well-established interventions for OCD (Himle & Franklin, 2009). It is often regarded as superior to alternative treatments for OCD, including stress management (Woody et al., 2011), anxiety management (Lindsay et al., 1997), and progressive muscle relaxation (Ponniah et al., 2013).

(b) Acceptance and Commitment Therapy (ACT): Acceptance and Commitment Therapy (ACT) is a contemporary psychotherapeutic approach that has gained recognition and popularity in the treatment of various mental health conditions, including Obsessive-Compulsive Disorder (OCD). ACT is founded on several principles and techniques that are distinctly different from traditional cognitive-behavioral therapies, offering a unique perspective on understanding and managing OCD. ACT is rooted in the broader context of the third-wave cognitive-behavioral therapies, which emphasize mindfulness, acceptance, and values-based living as central components of psychological well-being. It was developed by Steven C. Hayes in the 1980s and has since evolved into a comprehensive model for addressing psychological suffering and promoting psychological flexibility. ACT encompasses two fundamental objectives (Hayes et al., 1999): (i) **Acceptance of Uncontrollable Thoughts and Sensations:** This involves embracing undesirable thoughts and sensations, acknowledging that their occurrence or disappearance is beyond one's control, and learning to function alongside them. (ii) **Determination to Live a Valued Life:** The second objective focuses on making determined efforts and taking actions that lead to a life aligned with one's core values, ultimately enhancing the overall quality of life. At the core of ACT is the concept of psychological flexibility. This is the ability to be in the present moment with full awareness, open up to and accept difficult thoughts and emotions, and take action guided by one's values and goals. In the context of OCD, psychological flexibility involves acknowledging obsessions and anxieties without judgment, while also being willing to take steps toward meaningful life activities that are consistent with one's values. ACT employs a hexaflex model, which consists of six core processes that contribute to psychological flexibility: (i) Cognitive Defusion: This

process involves distancing oneself from unhelpful thoughts and beliefs. (ii) Acceptance: Acceptance in ACT refers to the willingness to experience unwanted emotions, sensations, and thoughts without trying to avoid or suppress them. (iii) Present Moment Awareness (Mindfulness): This process involves being fully engaged in the present moment, free from judgments about oneself and one's experiences. (iv) Self-as-Context: Self-as-context is the ability to see oneself from a broader perspective, transcending the egoic self. (v) Values Clarification: Identifying one's values and what truly matters in life is a critical aspect of ACT. (vi) Committed Action: This process involves setting goals based on one's values and taking committed steps to achieve them (Twohig, 2009).

ACT can be particularly beneficial for individuals with OCD due to its focus on acceptance and values-based living. It is applied to the treatment of OCD as per the following criteria - **Defusing Obsessive Thoughts:** ACT teaches individuals to defuse or detach from their obsessive thoughts. Instead of viewing these thoughts as commands or as reflections of reality, individuals learn to see them as mental events that don't necessarily require immediate action. This shift in perspective reduces the distress associated with obsessions. **Acceptance of Uncertainty:** OCD often revolves around the need for certainty and control. ACT encourages individuals to accept the uncertainty that life inherently holds. By practising acceptance of uncertainty, individuals with OCD can reduce the anxiety and distress associated with their obsessions. **Mindfulness Practice:** Incorporating mindfulness techniques into OCD treatment helps individuals stay present and nonjudgmental when confronted with obsessive thoughts or triggers. Mindfulness practices enable individuals to respond to their obsessions with greater awareness and choice. **Values-Based Actions:** ACT emphasises taking actions that align with one's values. In the context of OCD, this means engaging in meaningful activities and behaviors despite the presence of obsessions. For example, if someone values spending time with family, they are encouraged to do so even when obsessions arise. **Exposure with Response Prevention (ERP) in an ACT Framework:** Exposure and Response Prevention, a well-established technique for treating OCD, when integrated with ACT, can be seen as an opportunity to practice acceptance and values-based actions. Clients learn to accept the distressing feelings that come with exposure

and commit to not engaging in compulsions. **Self-Compassion:** ACT promotes self-compassion as an essential component of psychological flexibility. Individuals with OCD often struggle with self-criticism and shame. Self-compassion practices help them develop a kinder and more understanding relationship with themselves, reducing the emotional impact of OCD symptoms.

Effectiveness of ACT for OCD: Research on the effectiveness of ACT for OCD is still emerging, but initial studies and clinical observations suggest promise. ACT's emphasis on acceptance, mindfulness, values, and committed action aligns well with the challenges individuals with OCD face. While ACT offers a fresh perspective on treating OCD, it is not without challenges. OCD can manifest in various ways, and not all individuals may benefit from the same treatment approach. ACT may be more suitable for certain subtypes of OCD or as an adjunct to other evidence-based treatments. Many individuals with OCD have co-occurring conditions, such as depression or social anxiety. ACT may need to be adapted to address these comorbidities effectively. ACT can be integrated with other evidence-based treatments, such as ERP or medication. Decisions about treatment integration should be made based on individual patient needs and preferences.

In conclusion, Acceptance and Commitment Therapy (ACT) offers a novel and promising approach to the treatment of Obsessive-Compulsive Disorder (OCD). Its emphasis on psychological flexibility, acceptance, mindfulness, values, and committed action provides individuals with OCD with a unique framework for managing their symptoms and living a meaningful life. While more research is needed to establish its effectiveness fully, ACT represents a valuable addition to the spectrum of treatments available for OCD, especially for individuals who resonate with its principles and techniques.

(c) Mindfulness-Based Cognitive Therapy (MBCT): Mindfulness-Based Cognitive Therapy (MBCT) is an innovative and evidence-based therapeutic approach that has shown promise in treating various mental health conditions, including Obsessive-Compulsive Disorder (OCD). MBCT combines principles of mindfulness and cognitive-behavioral therapy (CBT) to help individuals better understand and manage their obsessive thoughts and compulsive behaviors. Similar to the Principles of ACT,

MBCT also includes cognitive elements, but MBCT is more rooted in traditional cognitive-behavioral therapy (CBT) principles. MBCT aims to identify and modify unhelpful thought patterns and beliefs that contribute to mental health challenges, including OCD. In contrast, ACT places a stronger emphasis on acceptance of thoughts and emotions without necessarily trying to change their content.

MBCT is an adaptation of Mindfulness-Based Stress Reduction (MBSR) and was initially developed to prevent the recurrence of depression. However, its core principles and practices have been applied to a wide range of psychological issues, including anxiety disorders and OCD. MBCT is grounded in the belief that individuals can develop a different relationship with their thoughts and emotions through mindfulness practices (Fresco et al., 2007). At the heart of MBCT is the concept of mindfulness, which is the practice of intentionally paying attention to the present moment without judgment (Segal et al., 2002). Mindfulness encourages individuals to observe their thoughts, emotions, and bodily sensations as they arise, fostering a non-reactive and accepting attitude toward their experiences. By cultivating mindfulness, individuals with OCD can learn to disengage from their obsessive thought patterns and compulsive behaviors. MBCT integrates several key principles and practices to address OCD effectively: (i) **Mindfulness Meditation:** MBCT includes various mindfulness meditation exercises that teach individuals to become more aware of their thoughts and emotions without getting entangled in them. (ii) **Non-Judgment:** A fundamental aspect of mindfulness is non-judgmental awareness. Individuals learn to accept their thoughts and emotions as they are, without labeling them as good or bad. (iii) **Letting Go of Control:** OCD is often characterized by a need for control and certainty. MBCT teaches individuals to let go of the need for control and accept the uncertainty of life.

(iv) **Experiential Exploration:** MBCT encourages individuals to explore their internal experiences in a curious and open manner. This exploration allows individuals to gain insight into the impermanent and ever-changing nature of their thoughts and emotions, reducing their power over them. (v) **Values Clarification:** MBCT helps individuals clarify their values and what truly matters to them in life. By connecting with their values, individuals can motivate themselves to take actions that align with their deeper sense of purpose, even in the presence of OCD symptoms. (vi) **Self-Compassion:** Self-

compassion practices are woven into MBCT, emphasizing the importance of treating oneself with kindness and understanding.

The application of MBCT in the treatment of OCD involves the following approach:

Observing Obsessive Thoughts: Mindfulness encourages individuals to observe their obsessive thoughts without reacting to them. Instead of getting caught in a cycle of rumination or trying to suppress the thoughts, individuals can learn to see them as mental events that come and go. **Tolerating Discomfort:** OCD often leads to intense anxiety and discomfort. Mindfulness practices teach individuals to tolerate these uncomfortable sensations without engaging in compulsions. This allows individuals to break the cycle of avoidance and ritualistic behaviors. **Reducing Compulsive Behaviors:** By cultivating mindfulness, individuals can become more aware of the urges that drive compulsive behaviors. Instead of automatically responding to these urges, they can choose to respond mindfully, which may involve non-engagement with compulsions. **Enhancing Self-Awareness:** Mindfulness practices enhance self-awareness, helping individuals recognize the triggers and patterns of their OCD. This self-awareness is crucial for developing a targeted and effective treatment plan. **Developing Resilience:** Mindfulness fosters resilience by teaching individuals to remain present in the face of distressing thoughts and emotions. Over time, this resilience can reduce the emotional impact of obsessions and compulsions.

Effectiveness of MBCT for OCD: Research on the effectiveness of MBCT for OCD is still evolving, but initial studies have demonstrated promising results. A 2017 meta-analysis published in the *Journal of Anxiety Stress Coping* found that MBCT and mindfulness-based interventions were associated with significant improvements in OCD symptom severity and depression. However, it's essential to recognize that MBCT may not be suitable for everyone with OCD, and treatment decisions should be made on an individual basis.

Conclusively, Mindfulness-Based Cognitive Therapy (MBCT) is a promising therapeutic approach for various mental health conditions, including depression, anxiety, and Obsessive-Compulsive Disorder (OCD). However, like any treatment modality, it has its limitations and potential challenges. Mindfulness practices, such as meditation and body scans, feel challenging for individuals with OCD, particularly if

they involve focusing on distressing or intrusive thoughts. Most of the clients find it difficult to engage in mindfulness exercises due to heightened anxiety and resistance to experiencing obsessions without engaging in compulsions. Like many psychotherapies, the success of MBCT relies on the individual's motivation and willingness to engage in the practices consistently. Individuals with OCD who struggle with motivation or severe symptom interference may find it challenging to commit to mindfulness-based practices.

1.10 Attrition

Cognitive Behavioral Therapy (CBT) with Exposure and Response Prevention (ERP) is widely regarded as the primary recommended psychological treatment for Obsessive-Compulsive Disorder (OCD), often supplemented with pharmacological management (Katzman et al., 2014). However, a significant portion of individuals with OCD either refuses treatment, drops out prematurely, or fails to respond adequately to these highly effective interventions. Despite the proven efficacy of CBT-ERP, nearly half of OCD sufferers continue to endure the distressing condition due to the challenging nature of the treatment, which involves anxiety-inducing exposures, demanding homework assignments, and a substantial number of sessions (Koran et al., 2007; Farris et al., 2013). While ERP is generally effective for individuals who can navigate its confrontational and anxiety-provoking aspects, a major barrier to successful treatment lies in premature treatment termination. Many OCD patients find ERP emotionally challenging, with approximately 25% refusing to participate and another 25% dropping out once treatment commences (Jenike, 2004; Schruers et al., 2005; Abramowitz, 2006). In fact, the rates of refusal and attrition for ERP in OCD surpass those observed for other therapeutic approaches (Radomsky et al., 2010). The inherent anxiety-provoking and demanding nature of ERP may lead individuals who are particularly avoidant of distressing thoughts or emotions to experience significant anticipatory anxiety about engaging in exposure exercises. Consequently, some may avoid these exercises altogether, resulting in premature termination of treatment.

Hence, there exists a compelling need for the development of alternative techniques that are both effective and more user-friendly. These alternatives should be of shorter duration, less frustrating, and feature less challenging homework assignments, ultimately improving treatment acceptability for individuals with OCD.

1.11 Rationale of Study

Taking note of the high attrition rate in Exposure and Response Prevention therapy, there is an increased need for a refined therapeutic option. Hence, the current study aimed to develop an integrative approach to treat Obsessive Compulsive Disorder, which is equally effective, of short duration (with a lesser number of sessions), less frustrating, with easier home tasks, and is loaded with motivational elements. Thus, this study is an attempt to develop a new psychotherapeutic approach to treat Obsessive Compulsive Disorder (OCD) by modifying conventional CBT in the sense of focusing more on components from neuropsychoeeducation, motivational interviewing, and metaphor therapy models, in addition to regular pharmacological management. This approach focuses primarily on empowering the client by equipping him with all the required information and motivation. It includes providing comprehensive details about the disorder and its etiology as per the neuropsychoeeducation content, with an intensive focus on the motivational component. This proposed therapy also includes extensive use of metaphors to enhance the knowledge and intrinsic motivation of the client. As a result, externally forced anxiety-provoking therapeutic steps, such as clinical-setting-based exposure and response prevention, are no longer required.

1.12 Components of Proposed Therapy

The whole therapeutic process in the proposed therapy is based upon the modified integrated CBT-ERP approach and is a blend of neuro-psychoeducation and motivation, disseminated by the extensive use of metaphors.

1.12.1 Neuropsychoeeducation

Psychoeducation is a structured and didactic approach to knowledge transfer designed to provide individuals with comprehensive information about a specific illness and its treatment (Swaminath, 2009). Traditional psychoeducation typically covers various topics, including the origins of the illness, the treatment process, potential side effects of prescribed medications, coping strategies, educating family members, and developing life skills. However, when neuroscience evidence is integrated into psychoeducation, often referred to as neuropsychoeeducation, it helps patients understand the underlying mechanisms of their illness (Madaan & Mishra, 2021). This approach empowers individuals to become experts in their own conditions, enabling them to make informed decisions about their treatment and adhere more effectively to therapeutic recommendations (Ekhtiari et al., 2017).

Neuropsychoeeducation provides several valuable benefits. It enhances compassion and empathy, reducing feelings of shame and blame (Miller, 2016). Concepts like neuroplasticity and information about physiology and self-regulation instill hope (Miller & Minton, 2016). When used with established therapeutic approaches, neuropsychoeeducation helps modify responses, fostering hope and reducing helplessness, enabling individuals to actively participate in their mental lives (Madaan et al., 2023; Siegel, 2012). Clients realize that change is possible.

In essence, neuropsychoeeducation equips individuals with a deeper understanding of the biological underpinnings of their condition. It demystifies the complexities of mental health issues, clarifying that these conditions have physiological components beyond one's control. This knowledge reduces stigma, encourages engagement in treatment, and facilitates the development of effective coping strategies (Ekhtiari et al., 2017). Furthermore, by integrating neuropsychoeeducation into therapy, clinicians can promote a more holistic and compassionate approach to mental healthcare, fostering a sense of hope, empowerment, and self-determination in individuals grappling with mental health challenges.

Psychoeducation vs. Neuropsychoeeducation: In the context of cognitive-behavioral therapy (CBT), "psychoeducation" refers to a structured and didactic approach aimed at providing individuals with comprehensive information about a specific mental health

condition and its treatment. It typically covers topics such as the nature of the disorder, its symptoms, causes, treatment options, coping strategies, and prognosis. Psychoeducation helps individuals understand their condition better, normalize their experiences, reduce stigma, and empower them to actively participate in their treatment. On the other hand, "neuropsychoeeducation", as included in the proposed therapy model, builds upon the foundation of traditional psychoeducation by integrating insights from neuroscience into the educational process. Neuropsychoeeducation goes beyond providing basic information about the disorder; it delves more into the underlying neurological mechanisms and brain processes associated with the condition. It educates individuals about how their brain functions, neurochemical imbalances, neural circuits involved in the disorder, and how these factors contribute to their symptoms.

Neuropsychoeeducation aims to demystify the disorder by explaining it in terms of brain structure and function, thereby reducing feelings of shame, guilt, or self-blame often associated with mental health conditions. For example, it involves discussing concepts such as neuroplasticity, which refers to the brain's ability to change and adapt over time. Clients may learn about how their brain's synaptic connections can be strengthened or weakened through repeated behaviors, contributing to the formation or breaking of compulsive patterns in OCD. Additionally, they can explore the role of neurotransmitters such as serotonin in regulating mood and anxiety, and how selective serotonin reuptake inhibitors (SSRIs) can modulate these neurotransmitter levels to alleviate OCD symptoms, thus complying more with the pharmacological treatment regimes.

Thus, by integrating neuroscience findings into psychoeducation, neuropsychoeeducation provides a more holistic understanding of the disorder, fostering empathy, self-awareness, and engagement in treatment.

1.12.2 Motivational Interviewing (MI)

Motivational Interviewing (MI) techniques, initially created to enhance motivation and reduce resistance in individuals with substance use disorders, have found broader applications, including in anxiety disorders like Obsessive-Compulsive Disorder (OCD). MI aims to help patients resolve ambivalence and develop motivation for

change (Miller & Rollnick, 2002). In OCD treatment, it serves as a "readiness intervention" to promote treatment acceptance among adult patients (Simpson & Zuckoff, 2011). Motivational interviewing operates on the premise that clients generally desire positive changes in their lives but may be hindered by fear or other obstacles. The primary goal is to amplify their motivation for change, enabling them to recognize and work towards their objectives. MI achieves this by eliciting behavioral changes through the resolution of ambivalence and by tapping into intrinsic motivation, as opposed to relying on external motivation from family members or treatment providers. It aims to evoke self-motivational statements and promote commitment to change. Motivational interviewing's relational context, rooted in Carl Rogers' client-centred therapy (Rogers, 1965), embraces empathy and the essence of the "MI spirit," encompassing working together (collaboration), drawing out (evocation), and client's independence (the preservation of client autonomy). Unlike adopting the role of a change advocate, MI encourages the client to assume the role of their own change advocate. MI employs tailored techniques to address client ambivalence towards change, minimize resistance, and amplify intrinsic motivation (Westra et al., 2011).

1.12.3 Metaphor Therapy

Metaphor therapy is a conversational tool to bring the client's issues to a more cognitive level without disturbing the emotional equilibrium. It is an instrument that allows the therapist to dive into the clients' minds through a very cognitive yet subtle process and create deeper insights. A metaphor is a word or phrase for one thing that refers to another object to demonstrate or imply that the two things are comparable (Lakoff & Johnson, 1980). In psychotherapy, clients and therapists frequently use metaphorical language to describe, for instance, the "black cloud" of despair. Metaphors serve as a form of expression in which a comparison is drawn between two distinct entities, effectively equating the first subject with the second. In therapy, the strategic use of metaphors has shown its capacity to aid clients in their quest for meaning, thereby fostering insight and the exploration of potential outcomes. Metaphors offer an indirect and less intimidating approach, often instrumental in bypassing resistance and accessing the unconscious aspects of the mind, which might otherwise remain elusive.

Moreover, therapeutic metaphors provide clients with the opportunity to reframe their perspectives on situations, allowing them to respond differently without apprehension. The indirect and non-confrontational nature of metaphors enhances rapport and communication between therapists and clients, strengthening the therapeutic relationship (Stott et al., 2010).

Metaphors, when incorporated into therapy alongside storytelling, serve a multifaceted role, including uncovering, reshaping, or generating meaning; educating and modeling concepts; facilitating change; altering cognitive schemas; influencing behavior; triggering those enlightening "aha!" moments; and diminishing defensiveness and resistance (Pernicano, 2014). Pernicano highlights the potential of metaphorical short stories to engage with regions of the brain less reliant on conscious, logical reasoning processes. Metaphors and the associated metaphorical knowledge are valuable assets in counseling, offering support for various developmental change processes. These encompass the establishment of therapeutic relationships, the facilitation of emotional expression and symbolism for clients, the identification and challenge of inferred assumptions, the management of client resistance, and the introduction of new frames of reference (Lyddon et al., 2001).

1.12.4 Integration of Components

The therapeutic model for OCD presented here is a client-centered approach that incorporates elements of neuropsychoeeducation, intrinsic motivation, and metaphoric language. It seeks to empower individuals in their struggle with obsessions and compulsions, with a unique focus on fostering the client's self-directedness in initiating the process of change. This approach differentiates itself from traditional Exposure and Response Prevention (ERP) Therapy, which often places more emphasis on exposure and response prevention within clinical settings under the therapist's guidance.

In ERP Therapy, the primary focus is on exposing the individual to anxiety-provoking situations and preventing compulsive responses. In contrast, the proposed therapy takes a different path by equipping the client with the knowledge, skills, and confidence needed to independently manage obsessions and limit compulsive behaviors. While

both approaches share similarities in utilizing the concepts of habituation and extinction, the proposed therapy does not rely on clinical exposure methods.

This therapeutic model is built on offering clients an extensive comprehension of the core theories related to obsessions and compulsions, covering aspects such as the disorder's diagnostic criteria, prevalence, etiology, biological basis, brain circuitry, the interplay of thoughts, emotions, and actions, the structure and function of the mind, and concepts like habituation and extinction.

This foundational knowledge serves several essential purposes. First, it dispels fear, confusion, and misconceptions related to the client's condition. By comprehending the intricacies of OCD, clients can demystify their symptoms and recognize that they are not alone in their struggles. Second, as therapy progresses, more advanced knowledge about neurological and psychological aspects is introduced. This includes concepts such as neuroplasticity (the brain's ability to change in response to experiences), the anxiety curve (which explains the relationship between anxiety and avoidance behaviors), thought-action fusion (the cognitive distortion that thoughts are equivalent to actions), and the theory of hope (which emphasizes the importance of hope in driving change).

These advanced concepts play a pivotal role in helping clients overcome ambivalence and resistance to change. They equip individuals with the tools to tolerate anxiety, challenge obsessive thoughts, and ultimately prevent compulsive responses. In this way, clients are empowered to make self-directed behavioral changes, including the restriction of compulsive behaviors.

Throughout the therapeutic process, metaphoric language is consistently employed. This approach serves a dual purpose. Firstly, it helps clients gain insight into their condition and the therapeutic process in a non-threatening and comprehensible manner.

Secondly, it addresses resistance and facilitates communication with the unconscious mind, which can be challenging to access through more straightforward means.

In summary, the prevailing psychological treatment for Obsessive-Compulsive Disorder (OCD), Cognitive Behavioral Therapy with Exposure and Response Prevention (CBT-ERP), faces challenges that result in high dropout rates due to its demanding nature. To address this, the study aims to develop an integrative therapy

approach by incorporating neuropsychoeeducation, motivational interviewing, and metaphor therapy models. This proposed therapy aims to empower OCD patients by providing comprehensive understanding, fostering intrinsic motivation, and utilizing metaphoric language to ease treatment. Unlike traditional anxiety-provoking exposure techniques, this holistic approach prioritizes client empowerment and independence in managing OCD symptoms. The goal is to enhance treatment acceptability and effectiveness, offering an easier alternative to conventional CBT-ERP, thus improving the overall quality of life for individuals struggling with OCD.

CHAPTER 2

REVIEW OF LITERATURE

The literature review for this study provides a comprehensive overview of existing research on obsessive-compulsive disorder (OCD). It focuses on understanding the key aspects related to OCD, including its chronic nature, the presence of obsessions and compulsions, and the marked anxiety associated with the disorder. Through an extensive search of the literature, this review aims to contribute valuable insights into the understanding of OCD and its treatment. Additionally, it identifies potential gaps in research, emphasizing the need for effective interventions with a focus on reducing attrition rates associated with anxiety-provoking exposure techniques. By synthesizing and analysing relevant literature, this study seeks to build a strong foundation for further research and interventions to improve the lives of individuals affected by OCD.

2.1 OBSESSIVE-COMPULSIVE DISORDER (OCD)

Obsessive-Compulsive Disorder (OCD) is a prevalent condition, impacting approximately 2.5% of the population, which equates to roughly 1 in 40 adults. This prevalence rate positions it at about double the occurrence of disorders like schizophrenia and bipolar disorder. Moreover, OCD stands as the fourth most commonly diagnosed psychiatric disorder (Fenske & Petersen, 2015). The severity of OCD can be profound and debilitating, infiltrating various aspects of an individual's life, including their family, work, and leisure activities. This disorder can significantly disrupt daily functioning. According to the NICE guidelines, a 2001 paper titled 'Quality of life and disability in patients with obsessive-compulsive disorder' (Bobes et al., 2001) highlighted that OCD ranks among the top 10 leading causes of disability worldwide. In fact, the World Health Organization (WHO) acknowledged several key facts about OCD in June 2018: it affects individuals from diverse cultural backgrounds, occurs equally in both men and women, can commence at any age (although it typically

begins in adolescence or early adulthood), and tends to persist throughout a person's life if left untreated.

Exploring life through the lens of an individual contending with Obsessive-Compulsive Disorder (OCD) unveils a complex interplay of emotions, thoughts, and actions. Despite a clear recognition of the irrationality inherent in their behaviors, they remain ensnared in a relentless cycle of repetition, akin to the challenges faced by those dealing with addiction. Living with OCD is akin to navigating a turbulent sea of thoughts and compulsions, where individuals grapple with intrusive thoughts that trigger overwhelming anxiety. In an attempt to alleviate this anxiety, they engage in compulsive actions or rituals, regardless of their awareness of their futility. This internal struggle raises questions about why awareness alone does not guarantee change, and it underscores the need to delve deeper into the underlying factors sustaining this cycle. While research has expanded our understanding of OCD, knowledge alone does not always translate into meaningful change in the lives of those affected. Similar to individuals with addiction, OCD patients may face blame for a perceived lack of insight or motivation. Remarkably, there remains a notable gap in research, particularly concerning insight and motivation for change among OCD patients. Despite progress in understanding the intricacies of the disorder, there is much to discover about what propels change and what hinders it. Obsessive-Compulsive Disorder stands as a chronic and debilitating mental condition affecting a significant portion of the population, affecting from 1 to 3% of the general population (Karno et al., 1988; Torres et al., 2006). It becomes imperative to bridge the gap in research regarding insight and motivation for change to enhance the quality of life for those wrestling with this formidable condition.

Schwartz and Begley (2002) defined OCD as a neuropsychiatric condition marked by distressing obsessions prompting ritualistic compulsions. The causes and biological basis of these symptoms remain elusive. The DSM, criticized for its focus on the form rather than the function of obsessions and compulsions (Abramowitz, 2006), was updated in 2013 to highlight functional consequences, such as academic delays and difficulty forming relationships due to harm-related obsessions. Notably, most OCD

patients exhibit both obsessions and compulsions (Foa & Kozak, as cited by Markarian et al., 2010).

OCD typically has a chronic course with symptoms rarely achieving full remission (American Psychiatric Association, 1994; Rasmussen & Eisen, 1994; Pine & McClure, 2004). Despite increased research since the 1970s, current primary treatments, including serotonin reuptake inhibitors and cognitive-behavioral therapy, do not provide satisfactory relief for a substantial percentage (40% to 60%) of patients (Rasmussen & Tsuang, 1986; Goodman et al., 1989). This often leads to a diminished quality of life, affecting social interactions, family relationships, education, and employment, potentially resulting in decreased self-esteem and increased suicidal ideation (Stein et al., 1996). Recent studies have further underscored the persistent challenges in achieving optimal outcomes for OCD patients despite advancements in treatment modalities (e.g., Fontenelle et al., 2006; Bloch et al., 2008; Fineberg et al., 2015).

2.1.1 Prevalence Rate

Obsessive-Compulsive Disorder (OCD) is defined by the presence of distressing obsessions, which are persistent and intrusive thoughts, images, or urges that lead to anxiety and distress. It also involves compulsions, which are repetitive behaviors or mental acts that individuals feel compelled to perform in response to these obsessions. These compulsions are often carried out to alleviate the anxiety or prevent a feared event, even though they are excessive and not logically connected to the obsession. Although the specific content of obsessions and compulsions can vary widely, contamination obsessions and washing/cleaning compulsions are consistently reported dimensions of OCD (Mataix-Cols et al., 2005; McKay et al., 2004), affecting approximately 30–40% of individuals with OCD (Pinto et al., 2007).

Obsessive-Compulsive Disorder (OCD) is a prevalent and often chronic condition that can significantly impact individuals' lives if left untreated. Its estimated prevalence rate is approximately 2%, as reported by Ruscio et al. (2010), making it a relatively common psychiatric disorder. This rate is consistent with findings in European countries, where

prevalence rates of up to 2.3% have been documented (Wittchen and Jacobi, 2005). The chronic nature of OCD underscores the importance of effective diagnosis and intervention, as highlighted by the American Psychiatric Association (2013).

One noteworthy aspect of OCD is its onset during childhood or adolescence. Research indicates that up to 50% of all OCD cases emerge during these formative years (Flament et al., 1988; Nestadt et al., 2000). What's even more concerning is that over 40% of individuals who experience early-onset OCD continue to struggle with the disorder into adulthood (Stewart et al., 2004). This persistence of symptoms from childhood into adulthood can have profound and enduring effects on individuals' lives.

Childhood-onset OCD is particularly challenging, as it often follows a chronic course. Research by Stewart et al. (2004) has shown that earlier onset is associated with a less favorable long-term prognosis. This suggests that individuals who develop OCD in childhood are more likely to experience ongoing symptoms and impairment throughout their lives. The impact of childhood-onset OCD extends beyond the individual, affecting their educational, social, and emotional development (Kolada et al., 1994; McGuire et al., 2019). Therefore, early identification and intervention are crucial in mitigating the long-term consequences of this disorder. While childhood-onset OCD is a significant concern, OCD can manifest at various ages. The National Comorbidity Survey Replication found that the median age of OCD onset is approximately 19 years (Kessler et al., 2005). Importantly, around 21% of cases begin as early as age 10 or even earlier. This early onset highlights the need for vigilance and early intervention, as OCD can take hold during crucial developmental stages. Studies examining the age of OCD onset have identified two distinct peaks. The first peak occurs at around 11 years of age, indicating that a significant number of individuals develop OCD during early adolescence (Delorme et al., 2005; Geller et al., 1998; Rasmussen & Eisen, 1992). The second peak emerges in young adults, at approximately 21 years. These findings underscore the heterogeneity of OCD, as it can affect individuals at various points in their lives. Recognizing the diversity of OCD presentations is essential. Subtypes of OCD, such as early-onset or pediatric OCD, as well as cases involving poor insight or those related to tic disorders, should be identified and considered in diagnosis and treatment (Geller et al., 1998; Rosario-Campos et al., 2001). Tailoring interventions to address the unique characteristics of these subtypes can enhance treatment effectiveness.

and improve outcomes for individuals living with OCD.

In conclusion, OCD is a prevalent and chronic psychiatric disorder that can manifest at different stages of life, including childhood, adolescence, and young adulthood. Its impact on individuals' lives, particularly when it begins early, underscores the importance of timely diagnosis and intervention. Understanding the distinct subtypes of OCD and their unique challenges is essential for providing effective treatment and support to individuals struggling with this debilitating condition.

OCD is recognized worldwide as the fourth most common mental disorder, with varying prevalence rates across age groups and regions. However, the estimated lifetime prevalence of OCD generally falls around 2.3%, with a range of 1.1% to 3.3%. Some researchers have suggested a slightly higher prevalence in females compared to males (Fenske & Petersen, 2015). Concerning the genetic aspects of OCD, Nicolini et al. (2009) conducted a comprehensive analysis of various studies. They observed an increased prevalence of OCD among immediate family members, indicating a strong genetic association. Twin studies also supported a genetic link, and gender studies highlighted genetic connections among males within families. However, they noted a lack of research in genetic and drug response studies and inconclusive findings in environmental factor studies. The researchers acknowledged the complexity of OCD due to various influences and its variability over a patient's lifetime. They suggested that the modest progress in understanding OCD genetics could be utilized to develop early identification programs for children at high risk of OCD, potentially uncovering related environmental influences.

Obsessive-Compulsive Disorder (OCD) exhibits demographic variations. In children and older adults (aged 65 and above), OCD tends to be more prevalent among males than females, as observed in studies by Geller et al. (2006), Lochner et al. (2004), and Grenier et al. (2009). However, among working-age adults, women have a higher lifetime prevalence of OCD, estimated at 1.3%, compared to 0.9% in men, as reported by Torres et al. (2006). The peak prevalence of OCD is in the 16-24 age group, reaching 1.4%, but it generally decreases with age. Individuals with OCD tend to be younger, reside in urban areas, and are less likely to be employed or married compared to individuals with other psychiatric diagnoses.

In a longitudinal study conducted by Fullana et al. (2009) in New Zealand involving over 900 participants, it was found that 13% to 17% experienced obsessions and compulsions at different ages without receiving a formal mental health diagnosis. Among those with OCD symptoms, 15% were bothered by obsessions, and 12% were bothered by compulsions. In another study involving over 2000 individuals, Ruscio et al. (2010) reported a lifetime prevalence of 28.2% for obsessions or compulsions in a community sample. These studies highlight that obsessive-compulsive symptoms exist in the general population, but not everyone is significantly affected or develops full-blown OCD. While the exact cause of OCD remains uncertain, cognitive factors, particularly how individuals interpret their obsessions and compulsions, may play a role. Additionally, while social and cultural factors can influence the expression and experience of obsessive-compulsive symptoms, there is a notable consistency in the presentation of OCD symptoms worldwide (Stein et al., 2019).

2.1.2 Symptoms

Individuals grappling with Obsessive-Compulsive Disorder (OCD) exhibit a diverse array of symptom clusters encompassing contamination obsessions, compulsive washing rituals, frequent checking behaviors, distressing religious thoughts, excessive hoarding tendencies, concerns about symmetry and order, and various others (Raynal et al., 2019). The presentation of these symptoms often displays variability, with periods of remission and alterations in manifestation throughout the course of the disorder.

The exact cause of OCD is not fully understood and is thought to result from a complex interplay of genetic, environmental, and neurobiological factors. Additionally, individuals with OCD often experience co-occurring mental health conditions, including anxiety disorders, post-traumatic stress disorder (PTSD), depression, substance use disorders, eating disorders, learning difficulties, and even thoughts of suicide (Fenske & Petersen, 2015).

Diagnosing OCD poses challenges not only due to symptom overlap with other psychiatric disorders and medical conditions but also because many individuals with

OCD tend to deny or conceal their symptoms and maladaptive behaviors. This concealment may arise from various factors, including the stigma associated with mental illnesses. OCD typically emerges during adolescence and late teens, with a median age of onset around 19-20 years, making high school and university students a particularly vital group to screen for OCD and related symptoms.

Studies have indicated higher OCD rates among university students compared to the general population, with this age group also facing increased risks of other mental health issues like substance use and suicidal tendencies, often linked to comorbid conditions of OCD. The demanding nature of medical school, rigorous curricula, limited leisure time, and the expectation of precision and perfectionism make undergraduate medical students particularly susceptible to OCD. Paradoxically, OCD can profoundly affect academic performance, overall well-being, social interactions, and may even lead to suicidal thoughts, underscoring the critical importance of early and appropriate diagnosis and management (Ansari, 2020).

In contemporary society, mental health has gained significant attention across various domains, including politics, medicine, and public awareness. Numerous initiatives and information campaigns aimed at promoting mental health care have been launched (Jaisoorya et al., 2017). It is essential to examine the changes over recent years in the timeframe between the initial manifestation of OCD symptoms and the commencement of suitable therapy. While there has been extensive research on the duration of untreated OCD and its influence on treatment outcomes, there has been limited investigation into the interval between receiving a diagnosis and initiating therapy. Even when individuals receive an accurate diagnosis, various barriers can impede the initiation of therapy, including prolonged waiting periods for available treatment slots, reservations about undergoing therapy, and the stigma or shame associated with OCD symptoms (Huang et al., 2018). Consequently, it is of paramount importance to scrutinize the timelines separately, encompassing the period from symptom onset to diagnosis and from diagnosis to the initiation of therapy.

The delay in diagnosing OCD stems from various factors, including misdiagnosis, stigma, and the age of onset. Misdiagnosis often occurs initially when individuals seek help from general practitioners before receiving a precise diagnosis from a psychiatrist.

Stigma surrounding OCD leads many to conceal their condition due to shame and fear, resulting in social withdrawal and treatment delays. OCD symptoms often manifest in late childhood or adolescence, and individuals with early-onset may delay seeking help. However, variations in methodology for determining onset and untreated duration limit study comparability (Torres, 2016; Leininger, 2010). Additionally, it's common for many patients to display certain OCD symptoms well before a formal diagnosis can be established. This indicates that they may experience symptoms before meeting all the diagnostic criteria necessary for a definitive OCD diagnosis. During this initial stage of symptom onset, there is a potential opportunity for early intervention and prevention programs to be beneficial. These programs could play a crucial role in preventing the further advancement of OCD symptoms into a full-syndrome condition.

2.1.3 Causal Factors

The onset of Obsessive-Compulsive Disorder (OCD) typically follows a gradual trajectory, often starting in early adulthood, although cases with childhood onset are not uncommon, as indicated by Piacentini and Langley (2004) and Wilhelm et al. (2005). Family and twin studies suggest a genetic component in OCD, but the disorder is often triggered or exacerbated by various stressors, such as sexual or marital difficulties, pregnancy, the illness of a significant person, or the death of a close relative. OCD symptoms tend to fluctuate in response to life stressors, although some patients may experience a steady progression of their symptoms, as observed in a study by Zetin and Kramer (1992) and Kracker et al. (2020). The pathophysiology of OCD has been linked to serotonin imbalance, although not all individuals with OCD respond satisfactorily to selective serotonin reuptake inhibitors (SSRIs) or clomipramine, with approximately 40% to 60% not achieving a satisfactory response, as discussed by Kaplan and Hollander (2003).

Research indicates that the pathophysiology of OCD involves multiple neurotransmitters beyond serotonin. Elevated doses of dopamine agonists have been linked to increased OCD symptoms, suggesting a role for midbrain dopamine (Alevizos et al., 2004; Denys et al., 2004). The inhibitory neurotransmitter GABA has also been

implicated (Zai et al., 2005), along with sex hormones (Brandes et al., 2004) and partial NMDA receptor antagonism, reducing glutaminergic activity (Greenberg et al., 2009; Rolls et al., 2008). These findings imply that OCD's pathophysiology is more intricate than a serotonin imbalance, involving various mechanisms. Genetic studies have identified variations associated with different OCD subtypes, like cleanliness obsessions and hoarding behaviors (Pittenger et al., 2005).

OCD presents various subtypes characterized by different compulsions and beliefs (Fontenelle et al., 2006; Calamari et al., 2004; Abramowitz et al., 2003). These subtypes tend to persist over time and may respond differently to treatments (Besiroglu et al., 2007). Due to variations in neurotransmitters, genetics, and clinical presentations, OCD is considered a heterogeneous disorder (Mataix-Cols et al., 2005; Nestadt et al., 2000).

Modern psychosocial approaches to OCD treatment emphasize anxiety reduction, with Cognitive Behavioral Therapy (CBT) being a prominent method. CBT for OCD includes Cognitive Therapy (CT) and Behavior Therapy (BT). Individual CT has shown response rates of 63% to 90%, while group CT tends to have lower outcomes (Wilhelm et al., 2005; Cottraux et al., 2001). BT, involving exposure and response prevention, has reported response rates of 60% to 80%, with a slight decrease to 50% to 60% when considering dropouts (Bjorgvinsson et al., 2007).

The trajectory of OCD symptoms can be significantly influenced by treatment, but for many patients, it follows a continuous course, with about a quarter experiencing a pattern of symptoms that wax and wane. OCD can have a substantial negative impact on the quality of life, comparable to conditions like schizophrenia, as highlighted by Sharma and Reddy (2019). The burden of caregiving and the associated personal and societal economic costs are also significant. In fact, in 2004, OCD was linked to more disability-adjusted life-years than the combination of multiple sclerosis and Parkinson's disease. Despite its profound impact, OCD often goes unnoticed, both in primary healthcare and psychiatric settings. This is partly because the symptoms of OCD are often internal and not externally visible, and individuals may be hesitant to reveal thoughts or behaviors they perceive as shameful or embarrassing. Consequently, the average duration from the onset of OCD symptoms to the initiation of initial pharmacological treatment is approximately 8 years. Even among those who seek

clinical help, fewer than 40% receive therapy specifically designed for OCD, and less than 10% receive treatment based on well-established empirical evidence.

2.2 TREATMENT

There is substantial evidence supporting the use of cognitive-behavioral techniques and selective serotonin reuptake inhibitors (SSRIs) for the management of OCD. These interventions, either individually or in combination, often lead to significant symptom alleviation for most patients, as indicated by Skapinakis et al. (2016). Given the well-established effectiveness of both SSRIs and cognitive-behavioral therapy (CBT), they are frequently combined in clinical practice. However, it's noteworthy that even after undergoing adequate treatment trials, a significant proportion of patients, approximately 40% to 60%, continue to report persistent and impairing symptoms following initial treatment, as highlighted by Pallanti et al. (2006). This has spurred research into augmentation strategies, innovative pharmacological agents, and neuromodulatory approaches.

2.2.1 Psychological Interventions

Cognitive Behavioral Therapy (CBT) stands as the gold standard for the treatment of Obsessive-Compulsive Disorder (OCD), with a robust body of evidence supporting its efficacy. In fact, CBT, when skillfully administered, may even surpass pharmacotherapy in terms of effectiveness (Öst et al., 2015). CBT for OCD encompasses two core components: cognitive reappraisal or restructuring, represented by the 'C' in CBT, and behavioral interventions, indicated by the 'B' in CBT. While these components can be applied independently, Exposure and Response Prevention (ERP) is the more prevalent approach in clinical practice.

ERP is a structured and manualized psychotherapy tailored for OCD. It revolves around systematically exposing patients to stimuli that trigger their obsessions, along with the associated anxiety and distress. Simultaneously, it instructs patients to abstain from engaging in compulsive or avoidance behaviors, a practice referred to as "response

prevention." ERP is considered highly effective and is well-established in the treatment of OCD. Additionally, there exist CBT modalities that emphasize the cognitive aspects of treatment, focusing on the assessment and restructuring of maladaptive thought patterns. Cognitive-focused Cognitive Behavioral Therapy (CBT) approaches have shown substantial improvements in the severity of OCD symptoms, both in the short and long term. However, it's important to note that incorporating cognitive elements into Exposure and Response Prevention (ERP) may not always enhance its effectiveness (Ougrin, 2011). Nonetheless, patients who struggle with insight into their obsessions or have difficulty tolerating direct exposure to their fears may prefer these cognitive-oriented therapies.

Despite the effectiveness of CBT, numerous barriers hinder access to this treatment for individuals with OCD. These barriers encompass the limited availability of local clinicians with expertise in OCD-specific approaches, high out-of-pocket costs associated with therapy, and the substantial time commitment required for CBT. Typically, CBT for OCD involves one or more hours of therapy sessions per week, accompanied by daily 'homework' assignments spanning at least 12 weeks. Furthermore, patient motivation to fully engage in CBT can pose another challenge. In response to these barriers, recent research has explored the use of technology and the Internet to deliver CBT remotely. Meta-analytical evidence suggests that remote CBT, administered through online platforms, exhibits efficacy comparable to that of in-person treatment (Wootton, 2016). This innovative approach holds promise for improving access to CBT and enhancing its effectiveness for individuals with OCD.

However, the nature of Obsessive-Compulsive Disorder (OCD) often leads to under recognition within mental health settings. This is primarily because OCD symptoms are typically experienced privately, with patients often hesitant to disclose thoughts and behaviors they perceive as shameful or embarrassing. Consequently, there can be a significant delay in seeking treatment, with an average period of up to eight years from the onset of symptoms to the initiation of treatment (Altamura et al., 2010). Even among individuals officially diagnosed with OCD, less than half receive therapy tailored specifically for the disorder, and only a small fraction, less than 10%, receive evidence-based treatment (Torres et al., 2006).

Extensive empirical evidence strongly supports cognitive-behavioral therapy (CBT) as the primary and most efficacious treatment for OCD, with a meta-analysis indicating significant post-treatment improvements ($ES = 1.39$) and sustained benefits at follow-up ($ES = 0.43$) (Olatunji et al., 2013). Among CBT approaches, Exposure and Response Prevention (ERP), involving systematic exposure to obsessional cues and ritual prevention, has consistently demonstrated significant effectiveness (Meyer, 1966; Reid et al., 2021).

Presently, treatment protocols for Obsessive-Compulsive Disorder (OCD) encompass several crucial components: (a) Sessions dedicated to the meticulous planning of treatment and educating patients about the manifestations of OCD symptoms. (b) Systematic, recurrent, and extended exposure to stimuli that evoke fear, employing both real-life situations and imaginative techniques. (c) Careful reduction of compulsive behaviors through the practice of response prevention. Generally, the treatment plan involves 12 to 16 weekly sessions, with the option of increased frequency if required.

Supervised Exposure and Response Prevention (ERP) sessions, supplemented by homework assignments, are highly effective in treating OCD, surpassing other psychological interventions ($ES 2.49$) and medication ($ES 0.92$) (Lindsay et al., 1997; Foa et al., 2005). In fact, a significant majority of individuals who complete ERP experience a degree of relief from their symptoms, whether solely through ERP or in conjunction with medication (Abramowitz et al., 2009). Nevertheless, it's essential to acknowledge that even following a comprehensive ERP course, nearly half of the patients still report persisting symptoms that significantly affect their day-to-day functioning.

Clinicians and researchers are actively working to enhance the effectiveness of Exposure and Response Prevention (ERP) therapy for OCD. One promising approach is the integration of inhibitory learning models into exposure therapy. Traditional viewpoints regarding the efficacy of ERP primarily revolve around emotional processing. According to these perspectives, the repeated and prolonged exposure utilized in ERP helps in correcting fear-based associations. This correction process leads to what is known as fear extinction, a crucial form of learning that takes place during exposure therapy. The gradual reduction of fear experienced both within

individual exposure sessions and over the course of multiple sessions is considered an indicator of this learning process (Foa & Kozak, 1986). However, a revised inhibitory learning framework, informed by research on fundamental learning processes in both animals and humans, offers a more comprehensive understanding and effective application of exposure therapy (Craske et al., 2008). This framework posits that exposure therapy does not involve the process of "unlearning" or "correcting" fear-based associations. Instead, it facilitates the establishment of new safety-oriented associations. After exposure sessions, a feared stimulus becomes associated with both its original (danger-related) meaning and a novel inhibitory (safety-related) meaning. Consequently, exposure therapy, within the inhibitory learning framework, aims to help patients develop and strengthen inhibitory associations in relation to older, fear-based associations.

The inhibitory learning model in Exposure and Response Prevention (ERP) focuses less on fear reduction through habituation and more on short-term fear tolerance, emphasizing the disconfirmation of threat-based expectations (Craske et al., 2008). Several clinical strategies have been developed to optimize inhibitory learning and enhance the overall effectiveness of ERP. These strategies align with two critical treatment objectives: 1. Challenging Negative Expectancies: Therapists work collaboratively with patients to confront and challenge their negative expectations about feared stimuli. By challenging these negative beliefs, patients can learn to generate new inhibitory associations, ultimately leading to a reduction in fear and anxiety. 2. Fostering Generalization of Inhibitory Associations: Therapists assist patients in applying their inhibitory learning across various contexts. Inhibitory associations developed during exposure therapy should not be limited to specific situations but should generalize to other situations in which fear may be triggered.

By implementing these clinical strategies, therapists aim to optimize inhibitory learning, thereby improving the overall effectiveness of exposure therapy in the treatment of OCD and anxiety-related disorders.

2.2.2 Pharmacological Interventions

Pharmacological Interventions for Obsessive-Compulsive Disorder (OCD) play a crucial role in the comprehensive treatment of this condition, and Selective Serotonin Reuptake Inhibitors (SSRIs) stand as the primary choice due to their established efficacy and tolerability (Koran, 2013). Various SSRIs have been compared in controlled trials, and meta-analyses indicate that their effectiveness in addressing OCD symptoms does not significantly differ among specific SSRIs. This suggests that, despite differences in labeling, all SSRIs may offer similar efficacy in treating OCD symptoms. Clinical guidelines recommend using SSRIs at the highest tolerated dose, following the dosing guidelines set by the Food and Drug Administration, for a minimum of 8 to 12 weeks (Soomro, 2008).

Research indicates that higher doses of SSRIs are slightly but significantly more effective than lower doses in treating OCD. Typically, it takes up to 12 weeks to assess a patient's response to SSRI treatment, with the most significant improvements usually occurring around the 6-week mark, following a logarithmic pattern of response (Bloch et al., 2010). However, more research is needed to determine the prognostic value of early responses or non-responses to SSRIs and to understand the likelihood and trajectory of delayed responses to these medications. Given the potential for adverse effects and the lack of evidence indicating differences in efficacy among SSRIs, it is recommended to continue treatment with a particular SSRI for at least 8 to 12 weeks before determining its effectiveness. Furthermore, research has shown that even up to 28 weeks after starting treatment, up to 25% of patients with treatment-resistant OCD may experience improvements with SSRI monotherapy (Dold et al., 2015). Additionally, it is advisable to maintain SSRI medication for at least 6 to 12 months following a positive response to treatment, as discontinuing SSRIs at any point carries a significant risk of symptom relapse. Studies involving placebo-controlled discontinuation have revealed that more than half of OCD patients who exhibit a positive response to SSRI treatment are likely to experience a recurrence of their symptoms within the subsequent 6 months (Fineberg et al., 2012).

Historically, clomipramine, a tricyclic antidepressant targeting serotonin, was the first effective medication for OCD and is still used today, setting a standard for treatment (Ackerman et al., 2002). However, there's ongoing debate about whether clomipramine

is significantly more effective than SSRIs for OCD treatment, with some meta-analyses of randomized controlled trials suggesting that it may have larger treatment-effect sizes (Ackerman et al., 2002).

In clinical practice, SSRIs are often the preferred initial treatment for OCD due to their better tolerability compared to clomipramine. Clomipramine can lead to significant anticholinergic side effects like dry mouth, blurred vision, constipation, fatigue, tremors, and excessive sweating, which are generally minimal with SSRIs. Additionally, clomipramine carries a higher risk of arrhythmias and seizures at high doses, requiring regular serum concentration monitoring. In contrast, while SSRIs carry a risk of serotonin syndrome, a rare and rarely fatal side effect even in overdose cases (Isbister et al., 2004), they are considered safer. Consequently, clomipramine is usually reserved as a second-line treatment for non-responsive patients.

In an effort to enhance the effectiveness of OCD treatment, some researchers have explored a novel approach that combines Cognitive Behavioral Therapy (CBT) with pharmacological cognitive enhancers like D-cycloserine (DCS), yohimbine hydrochloride, and methylene blue (Williams et al., 2014). Instead of directly targeting OCD symptoms, these enhancers aim to bolster exposure therapy by influencing specific brain regions and neurocircuitry involved in fear learning and extinction, central to Exposure and Response Prevention (ERP) therapy (Davis & Myers, 2002; Singewald et al., 2015). DCS, in particular, has garnered attention as it acts on the glutamatergic N-methyl-D-aspartate (NMDA) receptor in the amygdala, a key area for fear conditioning and extinction (Norberg et al., 2008). Both animal and human studies suggest that DCS serves as a memory enhancer, aiding the consolidation and reconsolidation of extinction learning achieved during exposure therapy. In simpler terms, DCS may enhance both short-term and long-term fear extinction, potentially reducing the number of exposure trials required for more lasting treatment outcomes when integrated with successful exposures during OCD treatment (McGuire et al., 2015). Augmenting CBT with DCS offers the potential advantage of reducing treatment attrition and dropout rates (Kushner et al., 2007; Storch et al., 2010). When there's an early reduction in the severity of symptoms during the treatment process, patients are more likely to remain engaged and complete the entire course of exposure therapy. This

aspect holds particular importance, especially since extended treatment durations can lead to heightened costs and potential logistical challenges. Moreover, achieving initial progress in treatment can counter negative outlooks on the prognosis and bolster patients' belief in the therapy's effectiveness. Additionally, by expediting the timeline for successful CBT, the integration of DCS may indirectly improve access to evidence-based yet underutilized treatments. If individual cases require fewer sessions due to more effective extinction trials, therapists can address their caseload more efficiently, ultimately accommodating more patients who might otherwise be on a clinic's waiting list. This has the potential to enhance the overall availability of treatment and potentially benefit a larger number of individuals dealing with OCD.

2.3 WHY ERP FAILS?

There are several reasons why some patients may not benefit from ERP (Exposure and Response Prevention) in the treatment of obsessive-compulsive disorder (OCD). Despite being an effective intervention, ERP is often associated with patient dropout (Ewing, 2014). The challenging and anxiety-inducing characteristics of Exposure and Response Prevention (ERP) therapy present a significant barrier to delivering effective treatment. As a result, approximately 25% of individuals with OCD decline to participate in ERP, and another 25% discontinue treatment after it has begun (Jenike, 2004). It's worth noting that these rates of refusal and dropout in ERP for OCD are higher when compared to other treatment approaches (Radomsky et al., 2010).

Patients, particularly those grappling with OCD, who discontinue their treatment prematurely often experience a decline in their quality of life and significant disruptions in their daily functioning (Norberg et al., 2008). Additionally, they may grapple with marital problems and interpersonal conflicts (Riggs et al., 1992). Beyond the detrimental impact on individual patients missing out on necessary care, patient dropout poses several challenges for mental health professionals, both in terms of clinical care and overall morale, not to mention the financial implications (Aderka et al., 2011).

Efforts have been made by researchers to mitigate the extensive ramifications of early treatment discontinuation by identifying predictive factors for patient dropout. Prior

research has suggested that several key elements can influence treatment attrition. These factors encompass the patient's age (Warnick et al., 2012), the particular clinical diagnosis (such as OCD compared to depression) (Hamilton et al., 2011), and the treatment modality employed (for example, ERP versus cognitive therapy) (Warnick et al., 2012). Symptom severity and demographic variables also generally play a role in predicting treatment attrition (Hamilton et al., 2011). It's important to note that the research findings regarding predictors of psychotherapy dropout are often varied and inconclusive. The disparities in findings related to specific factors influencing treatment dropout can be ascribed to variations in the definitions of treatment discontinuation adopted in various studies (such as post-intake or after the initial session), discrepancies in participant demographics (including distinctions between children and adults or between outpatient and inpatient treatment settings), and variations in the assessment tools utilized to evaluate symptoms (Chasson, 2005).

In addition to differences in symptom severity and demographic factors, there are other elements that might play a role in treatment discontinuation, particularly in adults with OCD. A study involving adult OCD patients found several differences between those who discontinued treatment and those who successfully completed it: 1) Patients who dropped out initially had less severe OCD symptoms compared to those who completed the treatment. 2) Dropouts had unrealistic expectations about treatment and found homework assignments to be bothersome. 3) Individuals who dropped out tended to be more critical of their therapists, describing them as babysitters. 4) Dropouts reported experiencing less anxiety related to homework assignments. 5) Patients who discontinued treatment did not feel as much pressure from loved ones to continue with the therapy (Hansen et al., 1992).

Adult patients who initially present with less severe symptoms of obsessive-compulsive disorder (OCD) at the beginning of treatment may exhibit reduced motivation and commitment to therapy. This diminished engagement could result in a higher likelihood of treatment discontinuation, primarily due to the anxiety-inducing nature of exposures, challenging homework assignments, and unmet treatment expectations (Hansen et al., 1992). While several factors contributing to treatment dropout in OCD patients have been explored, the extent to which individuals engage in emotional avoidance has not

been thoroughly investigated. Emotional avoidance may play a pivotal role in understanding treatment discontinuation in OCD patients. Exposure and response prevention (ERP) are fundamental components of psychological OCD treatment, involving the deliberate provocation of anxiety and emotional challenges. Individuals with a higher inclination for emotional avoidance may experience significant anticipatory anxiety during exposure exercises, leading them to avoid these exercises and terminate treatment prematurely. A study involving child victims of violence who received exposure-based treatment found that increased avoidance behavior just before treatment discontinuation was associated with a significant decrease in the number of treatment sessions completed by the child (Chasson et al., 2008). However, it's important to note that treatment dropout in youth can be complex (de Haan et al., 2013), and making direct comparisons between child and adult samples may not be entirely appropriate (Chasson, 2005).

Additionally, in a study carried out by Foa et al. (2005), while they did not employ a validated measure of avoidance behavior, they reported that approximately half of the adult OCD patients halted exposure and response prevention (ERP) therapy because they found the exposure sessions distressing and wanted to terminate them (Foa et al., 2005). This emphasizes the importance of investigating the potential link between avoidance behavior and treatment discontinuation in this particular patient group. It's important to note that some adults with OCD may decline or prematurely discontinue ERP therapy due to the distressing and anxiety-inducing nature of the treatment itself (Schruiers et al., 2005).

Insight, which refers to the degree of awareness an individual has regarding the irrational nature of their obsessive-compulsive symptoms, plays a role in treatment discontinuation among adult OCD patients. Insight can range from high, where individuals fully recognize the irrationality of their symptoms, to low, where such awareness is lacking (APA, 2013; 2000; Neziroglu et al., 2013). As individuals with OCD become more convinced of the validity of their obsessions, their insight tends to decrease. Conversely, some OCD patients acknowledge the senselessness of their obsessions and compulsions and perceive a low likelihood of their feared consequences becoming a reality. Research conducted by Foa (1979) involving four OCD patients

suggested that those with poor insight had less favorable responses to behavioral therapy. Santana et al. (2013) also explored the impact of poor insight on OCD treatment outcomes and found that patients with poor insight had a less favorable response to drug treatment. Additionally, overvalued ideation, which falls between delusions and rational thoughts on a continuum (Neziroglu et al., 2013) and shares similarities with insight (Eisen et al., 2001), has been identified as a factor contributing to treatment discontinuation in OCD patients (Veale, 1999).

Recent advancements in the treatment of OCD have introduced a promising approach known as Acceptance and Commitment Therapy (ACT) (Hayes et al., 2012). ACT is an experiential form of psychotherapy grounded in functional contextualism and Relational Frame Theory (RFT). It shares foundational assumptions with behaviorism and underscores the significance of context—both historical and situational—in shaping and predicting psychological experiences. In ACT, the understanding prevails that events resembling each other on the surface might have distinct functions due to variables such as the presence of obsessions, the client's personal history, and the intentions behind behaviors. This phenomenon is evident, for example, when activities like handwashing are recognized as compulsions in the context of OCD. ACT sessions commonly involve metaphorical dialogues that delve into these concepts. They may also include assignments to be done outside of sessions, aiming to solidify learning. The effectiveness of therapies rooted in functional contextualism is gauged by their capacity to enhance valued living, which is individually defined. This approach diverges from solely targeting psychological symptoms based on standardized measures or diagnostic criteria. RFT, a psychological theory centered on human language, proposes that our responses to stimuli surpass direct experiences, encompassing relational framing. This refers to perceiving one stimulus in relation to others. This language-driven, relational response mechanism can potentially provide insight into 'rule-governed behavior,' frequently seen in OCD, where obsessional thoughts lead to unnecessary actions like avoidance and compulsive rituals.

Hence, the core objective of Acceptance and Commitment Therapy (ACT) centers around fostering psychological flexibility. This means empowering individuals to be fully present in the present moment without becoming ensnared in inner experiences

like thoughts and emotions. Concurrently, ACT promotes a willingness to endure unwelcome private events, such as obsessional thoughts and anxiety. Within the framework of OCD, ACT strives to assist patients in pursuing what holds significance and meaning to them despite the coexistence of unwanted thoughts, anxiety, and compulsions. ACT encompasses several fundamental components, including acceptance (embracing private experiences without the pursuit of altering them), cognitive defusion (viewing obsessions as mere experiences rather than rigid truths), mindfulness (cultivating nonjudgmental attention to the present), self-as-context (developing a perspective as an individual undergoing fears rather than being defined by those fears), values (motivating therapeutic efforts toward areas that hold personal meaning), and committed action (taking steps aligned with one's values). Although ACT doesn't explicitly employ Exposure and Response Prevention (ERP) techniques, it shares overarching objectives with ERP, such as increasing patient interaction with feared stimuli and enhancing overall quality of life. To bridge the gap between ACT and ERP, Twohig et al. (2015) formulated an ACT-based ERP program with distinct aims: cultivating a willingness to confront and manage obsessions, anxiety, and uncertainty adaptively; acknowledging thoughts and emotions without categorizing them as right or wrong (cognitive defusion); and guiding patients in pursuing their valued life objectives. This program incorporates various ACT metaphors, meticulously customized to the context of OCD and its treatment.

In recent times, a noticeable shift has occurred in the approach to treating OCD, with an increased emphasis on examining the disorder from an interpersonal standpoint. This new perspective unveils a two-way relationship: where OCD symptoms can strain close relationships, and conversely, certain elements of these relationships can contribute to the perpetuation of OCD. In intimate relationships like marriages, partners who are unaffected by OCD might unknowingly fuel the symptoms by accommodating the individual with OCD. This accommodation could manifest through behaviors like facilitating avoidance or offering continuous reassurance in an attempt to alleviate excessive anxiety. Regrettably, such actions might inadvertently reinforce the OCD behaviors. Interpersonal aspects assume a significant role in influencing OCD symptoms, particularly when avoidance and rituals generate conflicts within the

relationship, leading to escalated stress levels and an exacerbation of the individual's OCD symptoms. Furthermore, chronic relationship issues unrelated to OCD, such as financial challenges or childcare responsibilities, can further elevate stress levels and amplify the obsessions and compulsions experienced by the person (Abramowitz et al., 2013). This emerging perspective underscores the necessity of taking into account interpersonal dynamics and the relational context when delivering effective treatment for OCD.

The reciprocal interaction between OCD symptoms and intimate relationships has spurred interest in investigating the potential advantages of involving partners in ERP treatment for individuals in close relationships. This approach seeks to tackle how relationship dynamics may impact the persistence of OCD (Chambless & Steketee, 1999). Initial studies exploring the effectiveness of "partner-assisted" ERP for OCD yielded varied results. Some studies found improved treatment outcomes when a partner or family member was included as a coach during ERP (Mehta, 1990), while others did not find significant distinctions (Emmelkamp et al., 1990). However, these preliminary studies were hindered by methodological shortcomings, including inconsistent implementation of ERP without therapist supervision. Abramowitz and colleagues (2013) introduced a couple-based ERP program that incorporated communication training, partner-involved exposure, and accommodation reduction, resulting in significant and sustained improvements in OCD symptoms in a trial with 16 couples. These improvements were notably more pronounced than those associated with comparable individual ERP-based treatments. Partners also exhibited decreases in accommodating OCD symptoms, alongside enhancements in their personal distress levels, relationship contentment, and functioning, including better communication and reduced criticism (Belus et al., 2014). This research underscores the potential advantages of enlisting partners in OCD treatment, leading to improved treatment outcomes and addressing relational elements that contribute to the persistence of OCD. By working collaboratively, couples can offer each other more effective support throughout the treatment journey, ultimately resulting in more substantial and enduring progress.

2.4 OTHER COMPONENTS

2.4.1 Neuropsychoeducation

Psychoeducation is an evidence-based psychotherapeutic intervention designed to enhance an individual's and their family's understanding of a mental health condition, thereby improving their ability to manage and cope with it. This approach is relatively straightforward, doesn't necessitate extensive theoretical expertise from practitioners, can be easily integrated into clinical settings, and is tailored to specific therapeutic goals. Psychoeducation practitioners primarily focus on identifying common objectives in therapy, providing knowledge about mental health conditions, and considering client perspectives on their treatment journey. This type of intervention can be employed regularly, even daily if needed, to promote client responsibility, proactive self-care, and self-awareness while reducing feelings of guilt, helplessness, and denial. Psychoeducation empowers individuals and their families by equipping them with information and skills to better navigate various mental health conditions (Sarkhel et al., 2020).

The definition of "psychoeducation" provided by Goldman (1988) offers a comprehensive understanding of the term. According to this definition, psychoeducation involves educating or training individuals with psychiatric disorders in subject areas that contribute to their treatment and rehabilitation goals. These subject areas include enhancing the person's acceptance of their illness, promoting active cooperation with treatment and rehabilitation, and strengthening coping skills to compensate for deficiencies resulting from the disorder. What sets this definition apart from previous ones is its inclusivity. It encompasses any education provided to a patient with a psychiatric disorder that enhances their ability to function within the community. However, it explicitly excludes education given to family members, emphasizing that psychoeducation pertains solely to the education of the individual with the psychiatric disorder. Despite various interpretations and evolving definitions, "psychoeducation" has continued to be used as a formal term, describing educational approaches aimed at benefiting both individuals with mental illnesses and their families. Researchers have employed different interpretations of the term, reflecting its broad utility in conveying

nonpharmacological measures that are beneficial to individuals with mental illnesses (Colom et al., 2003; Dixon et al., 2000).

Incorporating neuroscience aspects into the conventional model of psychoeducation is an important development in understanding and treating mental illness. This approach recognizes that the brain areas associated with emotions and memories, such as the prefrontal cortex, amygdala, and hippocampus, are highly adaptable, a phenomenon known as brain plasticity. Moreover, contemporary clinical approaches to mental illness treatment often involve addressing emotional and memory-related aspects, which directly engage these adaptable brain regions. This suggests that therapy can impact not only psychological aspects but also their underlying physiological substrates, a concept that has significant implications for clinical practice. By acknowledging the brain's capacity for change and neurogenesis through psychotherapy, individuals gain a deeper understanding of their own ability to transform their physiology. This newfound knowledge fosters a sense of self-efficacy and empowerment, motivating patients to actively seek and engage in the changes necessary for their well-being. In essence, psychoeducation that incorporates neuroscience helps bridge the gap between the psychological and physiological aspects of mental health, empowering individuals to take charge of their own recovery and healing (Davidson et al., 2000).

The intersection of brain research, neuroscience, and counseling has reached a level of precision where it directly informs both the counseling process and its outcomes. Through various neurobiological disciplines and advanced techniques like neuroimaging, researchers have discovered that measurable structural changes occur in the brains of individuals as a result of cognitive understanding and therapeutic interventions. One significant breakthrough in this field is the recognition of neurogenesis, which refers to the brain's ability to generate new neurons. This discovery has advanced our understanding of brain development and complements existing knowledge about its functional changes. For instance, cognitive processes, such as learning, understanding, and therapeutic insight, can lead to the formation of new neurons or the strengthening of existing neural connections. This neuroplasticity is central to how counseling and psychotherapy can have a profound impact on

individuals' brain structure and function. As a result, counselors and therapists are increasingly using this neurobiological knowledge to tailor their approaches and interventions. They can work with clients to promote positive structural and functional changes in their brains, ultimately enhancing the effectiveness of counseling and contributing to better mental health outcomes. This integration of neuroscience and counseling represents an exciting frontier in the field, allowing for more precise and targeted interventions that take advantage of the brain's remarkable capacity for change and adaptation.

The ever-changing brain – neuroplasticity and epigenesis

The human brain undergoes ongoing structural changes throughout an individual's life in response to environmental influences (Cozolino, 2010; Jokić-Begić, 2010). A deepened understanding of the neural composition of the brain and mind has led to the emergence of two significant findings relevant to both neuroscientists and psychotherapists: brain plasticity, also known as neuroplasticity, and epigenesis. Brain plasticity encompasses the brain's remarkable capacity to generate new neurons, a process referred to as neurogenesis, and to reconfigure neural networks over its lifespan (Begley, 2007). Epigenesis, on the other hand, pertains to research illustrating that while individuals are born with certain genes that are immediately engaged and impactful, the activation of many other genes is contingent upon an individual's environment and social interactions, triggering variations in gene expression (Szyf et al., 2008). Moreover, the continual generation of new neurons and synaptic connections, denoted as neurogenesis and synaptogenesis respectively, contributes to the perpetual remapping of neuronal structures (Bjorklund & Lindwall, 2000). This ongoing neuronal restructuring serves as a foundational element in the processes of learning and memory development (Clark & Beck, 2010). The concept of neuroplasticity bears significant relevance to various psychotherapeutic models. While research suggests the existence of critical periods for learning and brain wiring, it is essential to recognize that individuals possess the inherent ability to adapt and modify their neural structures in response to novel life experiences (Cozolino, 2010). This insight carries profound implications for counseling psychologists and psychotherapists, underscoring the

importance of remaining cognizant of the brain's adaptive potential in the context of therapeutic interventions.

Psychoeducation (PE) is a valuable therapeutic intervention introduced by Anderson et al. in 1980, offering structured information about disorders and their treatment to patients, families, and caregivers, improving understanding and treatment compliance. Inadequate information from healthcare providers can lead patients to seek unreliable sources, potentially compromising trust and adherence. On the contrary, open and informative discussions can demystify illnesses, motivating patients for treatment. Involving families enhances support. PE has proven effective in reducing rehospitalization rates, symptom burden, and relapse while improving adherence. It's been extended to various disorders, including depression, anxiety, multiple sclerosis, and even non-mental health issues like cancer. ASUD individuals, often lacking insight into their conditions, benefit significantly from PE (Yoonessi & Ekhtiari, 2013; Shuyler & Knight, 2003; Bäuml et al., 2006; Swaminath, 2009; Bossema et al., 2011; Pitschel-Walz et al., 2006; Donker et al., 2009; McGuire & Stojanovic-Radic, 2015; Northouse et al., 2014; Chandiramani, 1993).

There is currently a substantial disparity between traditional psychoeducation (PE) content and the emerging field of neuroscience. Surprisingly, there are no published studies on the use of neuroscience-informed psychoeducation (NIPE) to address questions raised by patients and their families. Several challenges hinder the integration of neuroscience-based PE: 1. Selecting Relevant Neuroscience Information: Identifying which aspects of the vast neuroscience literature would be most beneficial to incorporate into PE is a primary challenge. Not all neuroscience findings are applicable or comprehensible to patients, families, or healthcare providers. 2. Translating Complex Neuroscience: Simplifying the intricate and extensive neuroscience literature into clear and understandable language that can effectively convey the essential concepts to patients, families, and other healthcare providers is a formidable task. It necessitates bridging the gap between specialized scientific jargon and layperson comprehension. 3. Evaluating the Impact: Establishing that the inclusion of neuroscience-based information in PE genuinely enhances its effectiveness is another significant challenge. Rigorous research is essential to ascertain whether the integration of neuroscience

insights leads to improved patient understanding, engagement, and outcomes. To address these challenges and advance the field of NIPE, collaborative efforts are needed. Researchers well-versed in neuroscience must collaborate with experts in the practical delivery of PE. This interdisciplinary approach can facilitate the identification of relevant neuroscience findings, the development of clear and concise communication strategies, and the rigorous assessment of NIPE's impact on patient education and treatment outcomes. Such collaborations hold the potential to bridge the existing gap between neuroscience and psychoeducation, ultimately benefiting patients and their families.

Leveraging the potential of Neuroscience-Informed Psychoeducation (NIPE) involves not only integrating new content but also optimizing delivery methods by drawing insights from neuroscience and cognitive/affective psychology. This optimization includes tailoring presentation mediums, considering contexts (group, family, individual), strategically timing and spacing sessions, and providing comprehensive education on medication effects, both positive and negative. By incorporating these strategies, healthcare providers can create more engaging and effective psychoeducation experiences, enhancing patient comprehension, treatment compliance, and overall health outcomes (Prosser et al., 2006).

Neuroscience-Informed Psychoeducation (NIPE) has the potential to integrate medication, cognitive, and behavioral therapies, examining their impact on specific brain circuits associated with decision making, cognitive control, and executive functioning. This approach can enhance treatment motivation by illustrating how both pharmacological and non-pharmacological interventions contribute to improving the brain's capacity for recovery, as suggested by Chung et al. (2016), Potenza et al. (2011), and Tabatabaei-Jafari et al. (2014). Russell-Chapin's (2016) concept of neurocounseling aligns with NIPE, emphasizing the integration of neuroscience into counseling to elucidate the physiological basis of mental health concerns.

Kandel et al. (2013) posit that all mental processes, regardless of their complexity, are rooted in brain operations. Even when the origin of psychiatric disorders is environmental, they are fundamentally disturbances in brain function. According to their proposal, psychotherapy and counseling achieve long-term changes in behavior

by influencing genetic expression, which, in turn, leads to modifications in synaptic connections and structural alterations. These changes ultimately reshape the anatomical framework of interconnections among nerve cells in the brain.

Neuroscience-based psychoeducation helps clients comprehend that impaired or dysregulated brain function can give rise to emotional or cognitive difficulties. By addressing these issues, they can potentially bring about change. This understanding instills a sense of assurance, which can diminish or even eradicate feelings of hopelessness or powerlessness that may arise when such insights are lacking (Bonnstetter et al., 2014).

Neuroeducation, as conceptualized by Miller (2016), involves imparting knowledge about the brain and nervous system to clients as a therapeutic intervention to alleviate distress and enhance outcomes. This form of psychoeducation delves into the neurological processes underlying mental functioning. Miller's approach includes educating clients about neuroplasticity, brain structures, functions, and memory.

Neuroplasticity, the brain's adaptability and ability to recover from stress and change, plays a central role in neuroeducation. It encompasses modifications in neural circuits that facilitate learning, encode memories, and influence behavior (Li et al., 2019). Understanding neuroplasticity enables clients to recognize self-defeating thought and behavior patterns, simplifying the process of change. Integrating neuroscience into counseling practices enhances comprehension of human development, behavior, and effective interventions for various client populations (Ivey et al., 2012). Neuroeducation equips clients with insights into the neurological foundations of their experiences, fostering a deeper understanding of their symptoms and personal growth. This knowledge can empower clients to actively engage in their therapeutic journey, leading to improved outcomes in counseling and psychotherapy.

Dahlitz (2017) referenced studies indicating that when clients actively participate in decision-making and have options to choose from, it leads to heightened activity in brain regions like the caudate nucleus, associated with motivation. This research suggests that offering clients choices results in a stronger sense of control, increased motivation, and an overall improved mood.

Neuroscience has the potential to combat stigma surrounding mental disorders. The stigma associated with moral and cultural judgments can lead individuals dealing with mental illnesses to avoid seeking treatment and suffer silently. Neuroscience research has made significant progress in demonstrating the genetic and biological factors contributing to mental disorders. These findings support the argument that mental disorders should be approached and treated in the same manner as biological diseases or injuries (Malla et al., 2015). By increasing awareness and acceptance that mental illness is not a choice resulting from moral weakness, neuroscience knowledge can contribute to reducing stigma. Counselors can play a crucial role in conveying this idea to clients, their families, and the wider community.

Neuroscience offers valuable explanations that can be incorporated into psychoeducation. Counselors can utilize neuroscience explanations to assist clients in comprehending how their life experiences, trauma, illnesses, and substance misuse affect their brains. This understanding can provide clients with a sense of relief as they come to terms with the origins of their issues. Moreover, it empowers them by highlighting that their problems may have biological components that can be effectively managed (Roditi & Robinson, 2011).

Neuroscience offers valuable insights regarding medication. Understanding how medications affect brain and bodily functions is crucial for counselors when assessing clients and setting goals. For instance, certain psychotropic medications are associated with weight gain. Counselors can use this knowledge to support clients in adopting wellness initiatives such as diet and exercise. This holistic approach can improve medication compliance, as clients are less likely to discontinue their medication due to the discouragement of weight gain (McMillan et al., 2020).

Neuroplasticity, a fascinating discovery in neuroscience, refers to the brain's capacity to adapt by forming new neural connections, whether in response to learning, environmental changes, or as a means of compensation for injury or illness. What's even more remarkable is that the brain is continually changing. Counsellors can use the concept of neuroplasticity to instil hope in their clients, emphasizing that they are not permanently confined to their current thoughts, behaviors, or emotions (Puderbaugh & Emmady, 2023). These ideas offer guidance on how clients can reshape their brains,

reducing or eliminating their existing issues. Neuroplasticity concepts highlight how tools like cognitive-behavioral counseling, mindfulness, meditation, exercise, and diet can be instrumental in fostering positive changes. For both counsellors and clients, neuroscience provides the scientific basis for techniques such as cognitive-behavioral therapy, which harness the brain's remarkable neuroplasticity to create new neural pathways, replacing unhelpful and harmful thought and behavior patterns. Peckham (2017) underscores this perspective, suggesting that our acceptance of circumstances doesn't have to be the end of the story. If past experiences have shaped us in distressing ways, we can seek new experiences that lead to better lives. In the coming decades, neuroscience will continue to significantly impact our understanding of mental and physical disorders. Consequently, professionals in fields like counseling, social work, psychology, childcare, and social services must develop a fundamental grasp of the brain and the implications of neuroscience research for their practices.

2.4.2 Motivation for Change

Motivation isn't just a state of being; rather, it's an active process. It involves acknowledging a problem, seeking solutions for change, and then initiating and sustaining those efforts. Interestingly, there are numerous strategies to facilitate individuals in moving towards this recognition and taking action (Miller, 1995). The study of motivation within psychology holds particular relevance when addressing issues like treatment dropout, adherence, and maintaining behavioral changes. In fact, a lack of motivation is a commonly cited factor for patients discontinuing treatment, not adhering to recommendations, experiencing relapses, and encountering other unfavorable outcomes in various forms of psychotherapy (Pelletier et al., 1997).

Motivational interviewing is a pragmatic approach that places emphasis on specific strategies characterized by persuasion over coercion and support over argumentation. It requires the motivational interviewer to possess a clear sense of purpose, effective strategies, and the ability to intervene at crucial moments (Miller & Rollnick, 1991; Frost et al., 2018). When practicing motivational interviewing, clinicians adhere to five fundamental principles: 1) Express empathy through reflective listening, 2) Create a discrepancy

between the client's goals or values and their present behavior, 3) Steer clear of arguments and direct confrontation, 4) Adapt to client resistance rather than confronting it head-on, and 5) Foster self-efficacy and optimism.

Research indicates that approaches aimed at enhancing motivation are linked to increased engagement in treatment and favorable treatment results. These positive outcomes encompass reductions in substance consumption, higher rates of abstinence, improved social adaptation, and successful treatment referrals (Miller et al., 2004). Furthermore, maintaining a positive attitude toward change and a strong commitment to it is closely associated with positive treatment outcomes (Miller & Tonigan, 1996; Prochaska & DiClemente, 1992; Guzik et al., 2021).

Motivational Interviewing (MI) and Other Psychotherapies

Motivational Interviewing (MI) is a behavior-focused intervention that doesn't rely on providing explicit models, skills, or solutions. Instead, it aims to elicit and strengthen an individual's own motivation and commitment to change. Motivational Interviewing (MI) is commonly administered as a concise intervention, and studies have shown that it can achieve reasonably positive outcomes even following a limited number of sessions (Lundahl et al., 2010). One of the key advantages of MI is its versatility, as it can be integrated into various treatment approaches and adapted to different clinical settings and providers. Numerous studies explored MI's effectiveness when combined with diverse therapies, such as feedback, education, CBT, skills training, 12-step groups, and stress management (Arkowitz & Miller, 2008; Baer et al., 1999). This adaptability and compatibility with other treatments make MI a valuable tool in addressing a wide range of behavioral and psychological challenges.

The therapist's capacity to convey empathy, attunement, and an accepting attitude toward the patient fosters an environment conducive to meaningful therapeutic discussions and the exploration of the individual's life and objectives. This concept of "empowerment through acceptance" is fundamental to successful psychotherapy and the process of change in general. In psychotherapy, change is seen as a natural and inherent aspect of each person, and it is fostered by establishing a supportive and

accepting atmosphere. The interplay of acceptance and change, central to dialectical behavior therapy (DBT), is exemplified in the serenity prayer and 12-step literature. Acceptance doesn't mean indifference; it's about acknowledging thoughts, allowing thoughtful responses rather than impulsive reactions, a core aspect of cognitive-behavioral therapy (CBT).

In the domain of psychodynamics, there are notable convergences between motivational interviewing (MI) and humanistic psychology, particularly within the interpersonal, relational, and intersubjective traditions. Psychodynamic approaches are often portrayed as a delicate interplay between providing support (acceptance) and encouraging expression (challenge), as captured by the saying, *"I do enough psychotherapy to make psychoanalysis possible."* While the exact delineations among psychoanalytic terms may be debated, the psychological space that facilitates meaningful dialogue and fosters the potential for change has been described in various ways by different authors. Terms such as "transitional space" (Winnicott, 1971), "negotiation" (Pizer, 1998), and "thirdness" (Benjamin, 2004) have been used to depict this environment. Within this context, individuals find the inner strength to embrace transformative changes, empowering themselves to grow and evolve. In contrast, *enabling*, which is often associated with a different dialectic of dominance and dependence, clinging and discarding, and oscillating relationships, tends to perpetuate existing patterns and hinder genuine progress. Empowerment, on the other hand, stands as an antithesis to enabling, creating an atmosphere that nurtures self-determination and facilitates positive changes in psychotherapy.

Miller and Rollnick (1991, 2002, 2013) emphasize that motivational interviewing (MI) is compatible with various psychotherapeutic approaches. MI can be employed in a flexible manner, either integrated into an alternating model that addresses motivation for change at different treatment stages while other modalities handle different aspects or as a consistent style within a clinician's practice, blending engagement, focusing, evoking, and planning processes with other treatment modalities. The integrative approach also underscores the infusion of the spirit of MI into all patient interactions, fostering a partnership-based, accepting, compassionate, and evocative approach, irrespective of the specific psychotherapeutic modality utilized. Motivational

Interviewing (MI) has shown long-lasting treatment effects, especially when used as an initial step before more intensive standard treatment programs (Lundahl & Burke, 2009). In clinical practice, Motivational Interviewing (MI) is commonly combined with other psychotherapeutic methods like Cognitive-Behavioral Therapy (CBT) and 12-step facilitation. MI and CBT are often seen as complementary, with MI addressing the "why" of change and CBT focusing on the "how" of change (Carroll, 1998). Motivational Interviewing (MI) is a person-centered approach focused on enhancing motivation for positive behavioral changes (Miller & Rollnick, 2013). It emphasizes establishing an empathic relationship and eliciting an individual's reasons for change (Miller and Rose, 2009). Unlike psychodynamic approaches, MI acknowledges ambivalence without confrontation or interpretation. It employs a patient-centered, optimistic approach distinct from goal-oriented therapy. In contrast to CBT, MI places greater emphasis on acceptance and compassion, allowing patients to generate solutions themselves, empowering them in their change process. This approach avoids prescribing specific exercises and strategies, relying on the patient's autonomy.

Motivational Interviewing (MI) is employed in three key ways: as a standalone treatment, an adjunctive treatment alongside other interventions, or as a blended approach combining MI with other therapeutic strategies (Randall et al., 2017). Variations and adaptations of MI, including these blended approaches, are explored in the literature. Miller and Rollnick (2013) have redefined the concept of "resistance to change" in Motivational Interviewing (MI), encompassing a patient's commitment to their current behavior and relationship discord. Therapists are now responsible for eliciting motivation and building a strong therapeutic alliance. MI's ethos has evolved to include acceptance, compassion, collaboration, and evocation, emphasizing patient autonomy. The original four MI principles have been reconceptualized as four core processes: engaging, directing attention, eliciting, and strategizing, forming the basis for MI-based therapeutic engagements and strategies. These changes have enriched the MI approach and its effectiveness in facilitating change.

Motivational Interviewing (MI) has garnered extensive research attention, consistently demonstrating its effectiveness across a wide range of patient populations and addressing diverse issues. Numerous studies, including meta-analyses and literature

reviews, have consistently reported positive outcomes associated with MI and its adaptations. It has proven successful in reducing substance use, managing HIV risk, addressing gambling problems, and improving behavioral and psychiatric health outcomes. Additionally, MI has played a crucial role in enhancing intervention adherence and retention, promoting healthier dietary and exercise habits, and effectively managing chronic conditions such as hypertension and diabetes (Jones et al., 2014; Lundahl et al., 2010, 2013; Madson et al., 2016). In recent years, the scope of MI interventions has expanded to include a broader spectrum of patient populations. For example, MI has shown promise in meeting the needs of adolescents, individuals involved in the criminal justice system, those with eating disorders, and various medical groups. Among adolescents, MI interventions have effectively reduced substance use and encouraged positive health behaviors like safer sexual practices, physical activity, and healthier dietary habits (Cushing et al., 2014). However, it's important to consider individual differences, as the effectiveness of MI for adolescents may be influenced by factors like depression (Clair-Michaud et al., 2016). Within the criminal justice system, MI interventions have played a pivotal role in engaging offenders and probationers in treatment, although their impact on reducing substance use remains less conclusive (McMurran, 2009). Moreover, research indicates that MI is effective in addressing lifestyle and psychosocial issues among cancer patients, although its effects on disease self-management are more moderate (Spencer & Wheeler, 2016). In various medical populations, including individuals with chronic pain or eating disorders, MI has shown promise in enhancing motivation to change and improving treatment engagement (Alperstein & Sharpe, 2016; Macdonald et al., 2012). Overall, the versatility and consistently positive outcomes associated with MI make it a valuable intervention in diverse therapeutic contexts.

Assessing the effectiveness of Motivational Interviewing (MI) has been complicated by inconsistent implementation in treatment studies. Many studies have lacked rigor in reporting treatment fidelity and adherence to MI principles as defined by Miller and Rollnick (2013). Consequently, some studies may have erroneously reported MI as ineffective due to incomplete implementation. Spohr et al. (2016) conducted a study revealing that patients treated by clinicians with higher levels of empathy and adherence

to MI principles achieved significantly better outcomes than those treated by clinicians with lower fidelity to MI. This underscores the critical importance of ensuring proper implementation and adherence to MI techniques in both research and clinical practice to accurately assess its effectiveness.

Extensive research confirms the effectiveness of Motivational Interviewing (MI) and its variants across diverse populations and behavioral issues. MI, including motivational enhancement therapy, is recognized as an evidence-based practice for substance use disorders. Recent research has delved into the mechanisms of change in MI. Earlier studies identified essential components of MI, highlighting therapist and patient processes crucial for positive outcomes as proposed by Miller and Rollnick (1991, 2013). The MI spirit and the four MI processes (engaging, focusing, evoking, and planning) have been acknowledged as parallel drivers of change. A systematic review of 37 studies explored potential mechanisms, revealing therapist behaviors (e.g., empathy, MI spirit) and patient behaviors (e.g., change talk, self-efficacy) as important factors. The MI spirit and patient motivation consistently emerged as significant predictors of positive outcomes. Another meta-analysis of 19 studies emphasized therapist and patient behaviors as mediators of change. It found that reduced therapist MI-inconsistent behavior and increased patient change talk and intention were reliable indicators of favorable change (Apodaca & Longabaugh, 2009). In conclusion, research underscores the roles of the supportive MI spirit and patient motivation in facilitating positive changes during MI interventions. Ongoing research into MI processes has revealed that clinicians' ability to evoke change talk in patients is a significant mechanism for positive change. Clinicians aligning with MI principles lead to increased change talk, while inconsistent behaviors result in more sustain talk. However, the clinician-patient language dynamic is not one-sided, as patients can influence the nature of clinician reflections through their own language (Barnett et al., 2014). These findings enhance our understanding of MI's mechanisms and inform its effective application in various therapeutic contexts.

In summary, the accumulating evidence on MI highlights its efficacy as a therapeutic approach. It has proven to be more effective than no treatment and holds comparable outcomes to other active treatments, despite its relatively short duration. The

understanding of how MI operates and fosters positive change continues to evolve through extensive research and analysis.

MI in Obsessive Compulsive Disorder (OCD)

Motivational Interviewing (MI) presents several compelling reasons for its use as an adjunctive treatment to Exposure and Response Prevention (ERP) in the context of OCD therapy. Firstly, OCD patients often present a variety of reasons for refusing or partially adhering to ERP, and MI's structure, characterized by open-ended questioning and reflective listening, allows therapists to explore and identify these individual patient-specific barriers, enabling a targeted approach to treatment. Secondly, many aspects of MI align with ERP's objectives. ERP relies on a strong therapeutic alliance, collaboration, and the development of a patient's self-efficacy, all of which are promoted by MI. Thirdly, MI does not incorporate techniques that could undermine ERP, such as "neutralizing" unwanted thoughts with positive alternatives (Huppert & Franklin, 2005).

Numerous research investigations have delved into the amalgamation of Motivational Interviewing (MI) with Cognitive Behavioral Therapy (CBT) for the treatment of OCD, particularly through Exposure and Response Prevention (ERP). In these studies, MI techniques were employed as a preparatory phase before initiating CBT or ERP. As an illustration, Maltby and Tolin (2005) formulated a four-session readiness intervention to amplify motivation for ERP. Among twelve patients who had initially declined ERP, 86% of those who underwent the readiness intervention consented to commence ERP, a significantly higher proportion than the 20% in the waitlist group. However, it's noteworthy that over half of the patients who initiated ERP after the readiness intervention discontinued treatment before its conclusion, leading to an escalated dropout rate compared to the norm.

In an investigation involving pediatric participants (ranging from 6 to 17 years old) undergoing family-oriented CBT with ERP components, Merlo et al. (2010) contrasted the integration of three MI sessions with an equivalent number of additional psychoeducation sessions. The group receiving CBT + MI exhibited swifter

advancements and concluded the treatment three sessions ahead of the CBT + psychoeducation cohort. Nonetheless, there were no substantial disparities in OCD symptoms following the treatment. Meyer et al. (2010) explored an approach to enhance Cognitive Behavioral Group Therapy (CBGT) for adults grappling with OCD. They integrated two individual therapy sessions involving MI (alongside thought mapping) on a weekly basis before embarking on a 12-week CBGT course. Those who received the MI + thought mapping enhancement displayed statistically significant improvements after treatment in comparison to an information-only control group. It's important to highlight that in this particular study, MI was amalgamated with another intervention, CBGT.

Simpson et al. (2008) devised an approach to integrate Motivational Interviewing (MI) into conventional Exposure and Response Prevention (ERP) therapy with the intention of enhancing patient motivation for ERP treatment. They restructured the initial sessions to align with an MI framework and introduced a concise MI module in subsequent sessions for patients displaying hesitance or resistance toward engaging in exposures or completing assigned tasks. In a preliminary trial involving five participants, this method seemed to bolster treatment engagement, leading to decreased symptoms and improved quality of life (Simpson et al., 2008). However, a subsequent randomized trial contrasting MI (n = 15) with ERP alone (n = 15) did not manifest superior efficacy of MI-enhanced ERP (Simpson et al., 2010). These outcomes propose that while MI might not be indispensable for every patient, it could still hold value in instances where patients express uncertainty or unwillingness regarding treatment-related changes (Wheaton et al., 2016). Case studies also corroborate the supplementary utilization of MI across various anxiety disorders, including OCD, GAD, social anxiety disorder, panic disorder, health anxiety, PTSD, and mixed anxiety and depression (Westra et al., 2011). Additionally, evidence indicates that incorporating MI can heighten openness and response to exposure and response prevention for OCD (Merlo et al., 2010). For instance, McCabe et al. (2008) observed that a three-session motivational enhancement pre-treatment for OCD clients (n = 32) yielded significantly decreased OCD symptoms during subsequent CBT, in contrast to a three-session relaxation pre-treatment control group.

Motivational Interviewing (MI) originates from Rogerian therapy, emphasizing the therapeutic relationship's importance in treatment (Miller & Rollnick, 2013). Research consistently highlights factors like empathy and trust in the therapeutic alliance, vital for positive outcomes in therapies like Cognitive Behavioral Therapy (CBT) for anxiety disorders and OCD (Flückiger et al., 2018; Buchholz & Abramowitz, 2020; Vogel et al., 2006). While essential in psychotherapy training, CBT for OCD may not always emphasize this aspect. In contrast, MI prioritizes communication fostering cooperation and empathy, aligning well with the directive approach needed in OCD-focused CBT (Miller & Rollnick, 2013). Evidence suggests MI's potential to enhance CBT outcomes for anxiety disorders and OCD (Marker & Norton, 2018; Guzick et al., 2018; McCabe et al., 2019). A meta-analysis of 12 studies comparing standard CBT with MI-enhanced CBT for various anxiety disorders, including OCD, showed that MI-enhanced CBT consistently outperformed standalone CBT, with a substantial effect size of $g = .59$ (Marker & Norton, 2018). This demonstrates MI's valuable contribution to improving therapeutic outcomes, emphasizing its role in enhancing the therapeutic alliance, and providing more effective treatment for OCD and related anxiety disorders.

A meta-analysis of various augmentation strategies has highlighted the effectiveness of combining Cognitive Behavioral Therapy (CBT) with Motivational Interviewing (MI) for individuals with OCD. The effect size, initially at $g = .77$, increased to $g = .79$ with recent findings from a CBT + MI trial, demonstrating its superiority over alternative CBT augmentation methods like mindfulness techniques, family involvement, cognitive enhancers, or concurrent use of serotonin reuptake inhibitors. In a study by McCabe et al. (2019), 40 adults with OCD were divided into two groups: one receiving three sessions of MI and the other a relaxation control condition, followed by 15 ERP sessions. The MI group showed significantly greater symptom reduction during treatment, with similar dropout rates, homework adherence, and OCD severity at the 1-year follow-up. While MI had promising short-term results, future studies should include longer follow-up periods for a more comprehensive assessment.

In conclusion, CBT with ERP continues to be a highly effective treatment for OCD. However, incorporating MI as an enhancement can be particularly beneficial, especially when patients are ambivalent about treatment. Independent clinical trials have

consistently shown the advantages of using MI as a preparatory intervention before ERP. By addressing ambivalence through MI, therapists can create a collaborative and supportive environment, encouraging open discussions about patients' motivations for change (Guzick et al., 2021). This approach can lead to more positive treatment outcomes and improved patient engagement in OCD therapy.

2.4.3 Metaphors

The American Heritage Dictionary of the English Language (2000, p. 1104) offers a definition of the term "metaphor" as a "figure of speech in which a word or phrase typically associated with one thing is employed to signify another, thereby creating an implied comparison," and also as "one thing that is seen as symbolically representing another."

A metaphor is a linguistic device where a word or phrase is used in a way that suggests a resemblance or analogy to something else, even though the two things are not literally connected. Metaphors have played a fundamental role in human communication throughout history, appearing in various forms such as fairy tales, parables, and proverbs. In everyday communication, people naturally use metaphors, so it's logical to recognize their place in psychotherapy as a form of effective communication. In addition to well-crafted and purposeful metaphoric stories created to achieve specific therapeutic objectives, psychotherapy can incorporate various other forms of metaphorical communication. These include anecdotes, similes, analogies, parables, brief metaphorical statements, relationship metaphors, tasks with metaphorical meanings, and even objects used symbolically. Stories, when skillfully constructed and shared, often prove more engaging than straightforward explanations. They indirectly address issues and convey meanings that are somewhat concealed, making them less intimidating and confrontational compared to direct statements. Listeners have the flexibility to interpret stories at face value if they find the implicit message challenging at the moment, without jeopardizing the therapist-client relationship. The clinical use of metaphors in psychotherapy offers several benefits, including proposing solutions to problems, facilitating self-recognition, boosting motivation, reframing and redefining

issues, and reminding individuals of their own inner resources (Lepsekili & Zekeriya, 2014). The effective transmission of knowledge often occurs through the narratives and stories we share about our experiences, both with others and within ourselves. In the realm of cognitive-behavior therapy, stories, metaphors, and analogies are valuable tools integrated into daily practice. They serve various purposes, including assessing a client's suitability for treatment, challenging unhelpful thought patterns, and addressing behaviors that sustain problems. Collaboratively constructing and exploring these stories can have several advantages within the therapeutic context. They can strengthen the therapeutic alliance, provide clients with fresh perspectives on their issues, enhance the emotional impact and clarity of meaning, and bolster their motivation to initiate meaningful changes in therapy (Blenkiron, 2005). Metaphors play a pivotal role in shaping the therapeutic process by influencing the therapist's perceptions, approach, and attitude. They help structure how problems are discussed and the effectiveness of potential solutions (Berlin et al., 1991).

Metaphors are incredibly potent tools in therapy, often bordering on the magical. They have the capacity to diminish a client's resistance and confusion during therapy sessions, creating those "aha" moments that can transform the therapeutic dynamic. The strategic use of a powerful metaphor can not only redirect a session but also elevate the therapist-client collaboration to a new level while minimizing defensiveness. Metaphors in therapy offer several valuable functions: 1. Shifting Perspectives: They enable clients to view their challenges from new angles, breaking free from unproductive thought patterns. 2. Flexible Thinking: Metaphors encourage flexible thinking, fostering adaptability in approaching problems. 3. Eliciting Emotion: Metaphors evoke emotions and feelings, which are instrumental in driving meaningful change. 4. Enhanced Understanding: They facilitate a deeper understanding by combining words with visualizations, making complex concepts more accessible. 5. Increased Insight: Metaphors associate abstract concepts with relatable everyday examples, amplifying insights. 6. Therapeutic Reminders: Metaphors serve as reminders in daily life, helping clients maintain positivity and reinforce therapeutic concepts and insights between sessions (Belmont, 2013).

Metaphors are recognized by theorists as fundamental tools through which individuals comprehend, structure, and communicate their understanding of reality (Lakoff, 2012; Lakoff & Johnson, 1980). The use of metaphors has even been linked to a deeper emotional understanding (Fetterman et al., 2016). Within therapeutic contexts, clinicians have identified metaphors as powerful instruments for both expression and facilitating positive change (Finlay, 2016; McGuinty et al., 2014). For instance, contemporary therapeutic approaches like Acceptance and Commitment Therapy (ACT) heavily rely on metaphors to conceptualize experiences, decode internal cognitive patterns, clarify values, and drive actionable problem-solving (Stoddard & Afari, 2014).

Metaphors are pervasive in the counseling setting, where they serve as a vital medium for communication between counselors and clients, reflecting their widespread use in everyday language (Tay, 2016). Nevertheless, for metaphors to be truly effective, they must resonate with a shared conceptual understanding of the subject they describe (Kövecses, 2010). Previous research underscores the significance of metaphors in the counseling process across various theoretical orientations (Pilecki et al., 2015). Regardless of the therapist's theoretical foundation, metaphors and stories are employed to uncover, transform, or create meaning; impart or exemplify concepts; facilitate change; reframe schemas; modify behavior; induce hypnotic trance; strengthen parent-child relationships; construct personal narratives; trigger "aha" moments; or mitigate defensiveness and resistance (Pernicano, 2015).

The use of metaphors in therapy is well-documented in the literature (Blenkiron, 2010; Burns, 2007; Cattanach, 2009; Drewes, 2010; Erickson, 2011; Gil, 2013; Greenwald, 2014). In works like "101 Healing Stories for Kids and Teens," Burns elucidates how stories serve as tools for informing, educating, instilling values, building experiences, facilitating problem-solving, and catalyzing change or healing. Similarly, in "Healing with Stories," Burns presents a compelling collection of case studies contributed by renowned therapists, illustrating the profound role of metaphor in the therapeutic process.

Milton Erickson pioneered the use of stories and metaphors in therapy, departing from Freud's view of the unconscious as a positive and adaptable force shaped by

experiences. Erickson believed therapists could influence the unconscious by introducing new information, evoking emotions, and creating novel experiences through stories. Stories can lead the listener into a receptive state of readiness. Gabbard, in the preface of "The Metaphor of Play" (Meares, 2005), suggests that therapy can create new neural networks, with play therapy promoting brain integration. Pernicano expands on how stories can bypass conscious thought, connecting with non-verbal aspects of the brain. This approach has been influential in both child and adult therapy (Carlson, 2001).

Therapeutic stories can be employed in two ways: therapists can either choose pre-existing stories that suit their clients or spontaneously develop and share stories that align with emerging metaphorical themes. It's important to recognize that not all stories are universally applicable, and therapists should tailor both the story and its delivery to suit the specific needs of each client (Pernicano, 2015). Metaphors and stories are versatile tools that can be employed with clients of all ages, irrespective of the therapist's orientation or preferred treatment approach. When used effectively within therapy, they facilitate change by engaging non-cognitive, sensory, and emotional processes. These tools encourage clients to relate to the characters and themes within the stories, facilitating a deeper self-understanding, cognitive restructuring, and behavioral change (Pernicano, 2015).

Metaphor research has a long history dating back to Aristotle, but it gained significant modern attention with the publication of "Metaphors We Live By" by linguists Lakoff and Johnson in 1980. Their conceptual metaphor theory goes beyond viewing metaphors as mere linguistic decorations; instead, it posits that metaphors fundamentally shape our perception, cognition, and behavior. In the realm of third-wave cognitive therapies, therapies like Acceptance and Commitment Therapy (ACT) and Dialectical Behavior Therapy (DBT) place a strong emphasis on therapist-initiated metaphors (Stoddard and Afari, 2014; Linehan, 1993). However, despite the increasing popularity of metaphors in Cognitive-Behavioral Therapy (CBT), the extent and specific methods of metaphor use within this therapeutic approach remain relatively understudied.

Use of Metaphors in OCD Treatment

Dembo (2014) presented a case study where a combination of psychodynamic, narrative, existential, and metaphor therapy, along with conventional treatments, resulted in significant remission of severe OCD in a 12-year-old patient hospitalized in a psychiatric inpatient unit. Springer (2015) further emphasized the significance of storytelling and metaphor as valuable tools for therapists. These tools help therapists connect with their clients, explain complex disorders to family members, and introduce effective treatments. Based on extensive clinical experience working with OCD patients and their families, Springer provided a collection of stories that therapists can adapt and utilize to clarify challenging aspects of OCD and its primary treatment, Exposure and Response Prevention. These stories serve as instructive and engaging methods to establish a strong foundation for understanding, empathy, and support for individuals with OCD and their families.

Metaphors, anecdotes, and stories have proven to be valuable tools in various therapeutic approaches for treating Obsessive-Compulsive Disorder (OCD). Brief Strategic Therapy (BST), as noted by Pietrabissa et al. (2016), utilizes language that is injunctive and performative, aiming to change the individual's emotional state before influencing their behavior. This is achieved through the strategic use of metaphors, anecdotes, and stories, which enable BST to circumvent the individual's typical rational thought processes. By disrupting the logical constraints that keep the problem in place, BST can quickly break the cycle that perpetuates OCD. Similarly, Samantaray et al. (2019) discussed a case in which four sessions of Cognitive-Behavioral Therapy (CBT) were used for OCD treatment. In this approach, metaphors played a crucial role in enhancing the understanding of exposure exercises, thereby promoting adherence to the therapy. Dutta & Marks (2019) highlighted the effectiveness of metaphors in the context of exposure-and-response prevention therapy (ERP) for OCD. Metaphors served as valuable tools for clinicians to help clients foster acceptance during the treatment process. Furthermore, Philip & Cherian (2021) demonstrated a successful case of OCD treatment using Acceptance and Commitment Therapy (ACT). This approach heavily relies on metaphors to convey its core principles and facilitate positive therapeutic outcomes.

In summary, metaphors, anecdotes, and stories have been instrumental in various therapeutic modalities, including BST, CBT, ERP, and ACT, for effectively treating OCD and fostering acceptance and change in individuals with the disorder.

2.5 CONCLUSION

In conclusion, the review of the literature in this study has provided a comprehensive understanding of the key aspects related to obsessive-compulsive disorder (OCD). The exploration of OCD's chronic nature, the presence of obsessions and compulsions, and the significant role of anxiety have laid a strong foundation for our research. Moreover, the integration of neuropsychoeeducation, intrinsic motivation, and metaphoric language within the framework of cognitive-behavioral therapy (CBT) offers a promising alternative to exposure-based therapies, aiming to reduce attrition rates and enhance treatment outcomes. By synthesizing existing research, this study is well-positioned to contribute to the advancement of OCD treatment strategies, emphasizing client empowerment and improved engagement for better therapeutic results.

CHAPTER 3

RESEARCH METHODOLOGY

Following a comprehensive review of existing literature, it was observed that current treatment modalities for obsessive-compulsive disorder (OCD), including the widely recognized Cognitive Behavioral Therapy with Exposure and Response Prevention (CBT-ERP), fail to adequately address certain concerns and exhibit various limitations. Consequently, a significant number of individuals discontinue treatment prematurely. To address this issue, the present study was undertaken to develop a refined therapeutic approach that would maintain comparable effectiveness while requiring shorter duration, lesser anxiety-provoking, and easier homework tasks, thereby promoting improved treatment adherence.

This chapter outlines the methodology employed in the study. The primary objective of this study was to create a content and session-wise structured therapy, referred to as the proposed therapy, integrating components such as neuropsychoeeducation content, motivation-enhancing content, and metaphoric content within the framework of Cognitive Behavioral Therapy (CBT). Additionally, the study sought to validate the efficacy of the proposed therapy in combination with pharmacotherapy through the use of psychometric ratings. Furthermore, a secondary objective was to compare the effectiveness of the proposed therapy in combination with pharmacotherapy to that of Cognitive Behavioral Therapy with Exposure Response Prevention (CBT-ERP) combined with pharmacotherapy which is an established gold standard treatment for obsessive-compulsive disorder. This chapter provides comprehensive details regarding the study's objectives, hypotheses, sample selection, utilization of assessment tools, and the statistical analyses conducted.

3.1 OBJECTIVES

The following objectives have been formulated in the present research:

1. To develop Neuropsychoeeducation content for the proposed therapy which would include the extraction and simplification of complex neuroscience information.
2. To develop Motivation-enhancing content for the proposed therapy which would include the identification and shortlisting of the best suitable components of Motivational Interviewing.
3. To develop Metaphoric content for the proposed therapy which would include creating a bank of metaphoric references including short stories, symbolic ideas, fables, parables, folk tales, etc.
4. To develop a session-wise structured therapy by integrating components of Neuropsychoeeducation, Motivation, and Metaphors for the treatment of OCD.
5. To validate the efficacy of developed therapy through psychometric ratings (YBOCS).
6. To compare the effectiveness of proposed therapy in combination with pharmacotherapy, to that of CBT-ERP with pharmacotherapy.

3.2 HYPOTHESES

Based on the objectives mentioned, the following research hypotheses can be formulated:

1. The proposed therapy, integrating Neuropsychoeeducation, Intrinsic motivation, and Metaphoric language, will demonstrate significant efficacy in reducing obsessive-compulsive symptoms in individuals with OCD.
2. The effectiveness of the proposed therapy in reducing OCD symptoms will be better than the outcomes achieved through conventional Cognitive- Behavioral Therapy with Exposure and Response Prevention (CBT-ERP) treatment.

3. The attrition rate in the proposed therapy group will be significantly lower than that observed in the CBT-ERP group, indicating higher treatment acceptability and adherence in the former.

3.3 RESEARCH DESIGN

The research design employed for this study is experimental with the *intervention* as independent variable and the *severity of OCD symptoms* as dependent variable, utilizing purposive sampling.

3.4 SAMPLE

The final sample size for the study was 52 participants. Within this sample, 26 participants were assigned to the Experimental Group receiving the proposed therapy alongside ongoing pharmacological management, and 26 participants were assigned to the Control Group receiving Cognitive Behavioral Therapy with Exposure Response Prevention (CBT-ERP) alongside ongoing pharmacological management.

3.4.1 Inclusion and Exclusion Criteria

Inclusion criteria:

- Both males and females
- Age 18 years and above
- Active OCD symptoms meeting the ICD-10 criteria for diagnosis
- Yale-Brown Obsessive-Compulsive Scale (YBOCS) scores >16
- On pharmacological treatment – taking Selective Serotine Reuptake Inhibitors (SSRIs)
- Willingness to comply with the assigned treatment

Exclusion criteria:

- YBOCS scores below the threshold
- Severe medical illnesses
- Organic disorders such as epilepsy or neurological disorders
- Psychoactive substance use disorder
- Previous recipient of any form of psychotherapeutic treatment for OCD
- On pharmacological treatment, other than SSRIs
- Presence of co-morbid psychiatric illness

3.4.2 Sample Distribution

In this study, a total of 88 participants were initially evaluated for inclusion. Out of these, 36 participants were excluded from the study. The reasons for exclusion were that 24 participants did not meet the predetermined inclusion criteria, and 12 participants refused to participate. The final sample size for the study was 52 participants. Within this sample, 26 participants were assigned to the Experimental Group receiving the proposed therapy alongside ongoing pharmacological management, while 26 participants were assigned to the Control Group receiving Cognitive Behavioral Therapy with Exposure Response Prevention (CBT-ERP) alongside ongoing pharmacological management. During the course of the study, there were some participants who were lost to follow-up. Specifically, 2 participants from the Experimental Group and 10 participants from the Control Group were lost to follow-up and their data could not be included in the final analysis. Therefore, the analysis was conducted on a total of 24 participants in the Experimental Group and 16 participants in the Control Group. These participants were included in the final analysis to examine the outcomes and effectiveness of the interventions. The visual presentation has been shown in Figure 3.1.

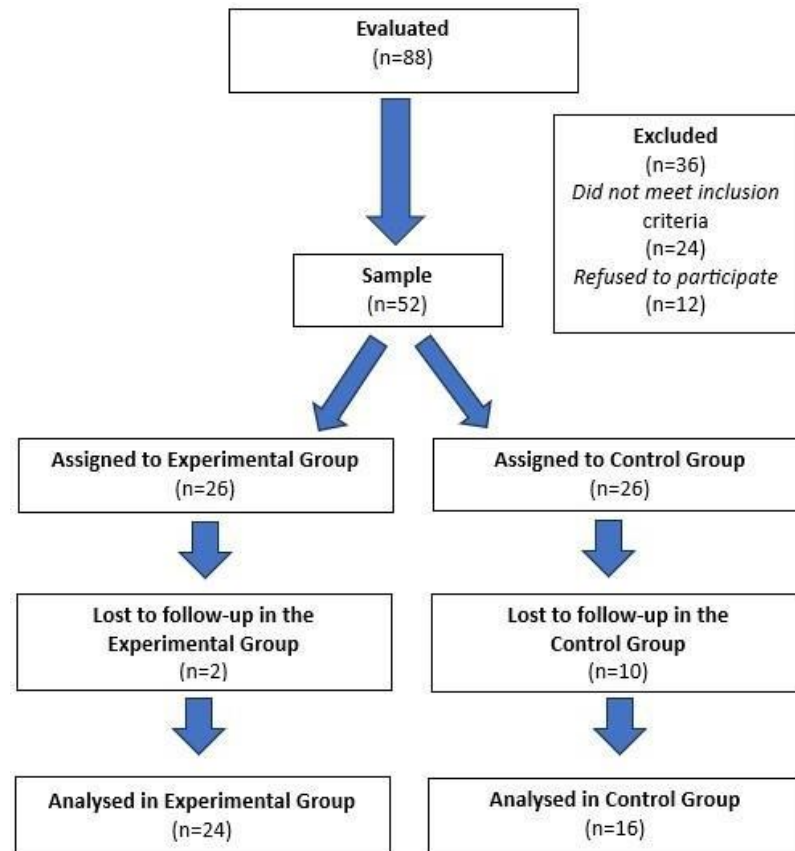


Figure 3.1: Sample Distribution

3.5 TOOL

Yale-Brown Obsessive-Compulsive Scale (YBOCS): In this study, the severity of obsessive-compulsive symptoms exhibited by the subjects was assessed using the Yale-Brown Obsessive-Compulsive Scale (YBOCS). The Yale-Brown Obsessive-Compulsive Scale (YBOCS) is a widely recognized and extensively used assessment tool designed to evaluate the severity of obsessive-compulsive disorder (OCD) symptoms. It has high levels of reliability and validity, making it a valuable instrument in research studies and clinical practice. The YBOCS exhibits high internal consistency, indicating that its items are strongly correlated and consistently measure the intended construct of OCD symptom severity. This is supported by a high Cronbach's alpha coefficient of 0.85, indicating strong reliability (Goodman et al.,

1989). The scale's internal consistency ensures that it reliably captures the frequency, interference, and distress associated with obsessions and compulsions. The scale has been validated against expert clinician ratings and shows strong concurrent validity. Additionally, the YBOCS has good discriminant validity, as it differentiates individuals diagnosed with OCD from those without the disorder. The reliability and validity of the YBOCS make it a valuable tool in research studies. Its consistent and accurate measurement of OCD symptom severity enables researchers to evaluate treatment effectiveness, compare different interventions, and track changes in symptom severity over time.

3.6 PROCEDURE

All participants were recruited as per the defined inclusion and exclusion criteria, from the general psychiatric outpatient department (OPD) of NHS Hospital, Jalandhar (Punjab). The consultant psychiatrist of the hospital was briefed about the study and was requested to refer the cases to the researcher. Prior informed consent was obtained from all participants.

The clinical sample was randomly assigned to either the Experimental Group or the Control Group based on the research design of random sampling, using the odd-even criteria. Pharmacological treatment was identical for both groups and administered by the same clinician.

Experimental Group participants, comprising 26 cases, received the proposed psychotherapy in addition to ongoing pharmacological management. The psychotherapy program consisted of 12 weeks, with the first eight sessions scheduled weekly and the remaining two sessions spaced two weeks apart from the last session (totalling 10 sessions with each session lasting 45-60 minutes).

The Control Group, comprising 26 cases, received CBT-ERP in addition to ongoing pharmacological management. The CBT-ERP treatment, based on the manualised therapy protocol as suggested by Foa et al., 2012, spanned 3 months, involving 1-2

sessions per week (approximately 20 sessions), with exposure response prevention delivered on alternative days under clinical assistance in the hospital OPD.

Both therapies concluded after 12 weeks but subjects were required to come for follow-up after one month and three months from the last session.

To minimize bias, therapy interventions were provided by different therapists; the researcher rendered therapy for the Experimental Group, while another qualified clinical psychologist rendered therapy for the Control Group.

Scores from both Groups were obtained on the YBOCS at baseline, post-intervention, one-month follow-up, and three-month follow-up to assess and compare the differences between the two intervention plans. Additionally, the attrition rate was calculated by determining the total number of drop-outs during the intervention for both groups.

3.7 STRUCTURE OF THE PROPOSED THERAPY

The development of the proposed therapy for Obsessive-Compulsive Disorder (OCD) involved a comprehensive review of the existing literature, as well as extensive collaboration and consultations with a diverse group of mental health professionals, including experienced psychologists, psychiatrists, and neurologists. This collaborative effort aimed to create a therapy model that would be highly effective in addressing OCD by combining elements of neuropsychoeeducation, intrinsic motivation, and metaphoric language.

The core philosophy of this therapy is rooted in the belief that individuals with OCD can benefit greatly from not only gaining knowledge about their condition but also from being intrinsically motivated to make positive changes in their lives. Unlike traditional Exposure and Response Prevention (ERP) Therapy, which often focuses on exposure exercises within clinical settings, this therapy places a strong emphasis on empowering clients to take charge of their own recovery journey.

One key aspect that sets this therapy apart is the focus on the client's self-directedness in initiating the process of change. In ERP Therapy, clients typically follow exposure exercises guided by a therapist. However, in this proposed therapy, clients are encouraged and equipped with the knowledge and tools needed to independently manage their obsessions and limit compulsive behaviors. This shift in approach promotes a sense of self-efficacy and autonomy, which are essential for long-term recovery.

The therapy incorporates concepts similar to habituation and extinction, which are explained in ERP Therapy and Cognitive Behavioral Therapy (CBT). However, instead of relying on clinical exposure methods, the proposed therapy imparts a deep understanding of the fundamental theories underlying obsessions and compulsions. This includes comprehensive information about the disorder itself, including diagnostic criteria, prevalence rates, etiology, biological foundations, and the brain circuitry involved. Clients are also educated about the intricate connections between thoughts, emotions, and actions, as well as the structure and functioning of the mind.

This foundational knowledge serves several critical purposes. First, it helps dispel fear, confusion, and misconceptions that clients may have about their condition. By providing a solid understanding of the disorder, the therapy reduces the stigma associated with OCD and fosters a sense of empowerment. Clients gain insight into the mechanisms underlying their symptoms, which can be instrumental in motivating them to make positive changes.

As the therapy progresses, more advanced knowledge about neurological and psychological aspects is introduced. Concepts such as neuroplasticity, the anxiety curve, thought-action fusion, and the theory of hope are discussed. These concepts play a crucial role in helping clients overcome ambivalence and resistance to change. For example, understanding the concept of neuroplasticity can encourage clients to believe in their capacity to rewire their brains and develop new, healthier thought patterns.

The therapy also utilizes metaphoric language as a continuous tool throughout the sessions. Metaphors are powerful in conveying complex ideas and emotions in a non-

threatening manner. They can help bridge the gap between conscious and unconscious thoughts and emotions, making it easier for clients to access and address underlying issues. Metaphoric language is particularly effective in reaching the unconscious mind, which can be challenging to access through traditional therapeutic approaches.

In essence, this therapeutic approach modifies the conventional Cognitive Behavioral Therapy (CBT) process by integrating neuropsychoeeducation, intrinsic motivation, and metaphoric language as key components in each session. These elements work together cohesively to empower clients to manage their obsessions and compulsions independently. This approach reduces the reliance on excessive external support from the therapist, promotes better treatment adherence, and ultimately leads to improved outcomes for individuals with OCD.

The proposed therapy consists of a structured program comprising ten sessions, each with a specific focus on understanding and managing OCD symptoms. By systematically addressing different aspects of the disorder, clients are provided with a comprehensive toolkit for managing their condition effectively. This structured approach ensures that clients receive a well-rounded treatment experience that equips them with the knowledge and skills they need for long-term recovery.

In conclusion, the proposed therapy for OCD represents an innovative and client-centered approach to treating this challenging condition. By combining neuropsychoeeducation, intrinsic motivation, and metaphoric language within the framework of CBT, this therapy empowers individuals to take control of their recovery journey. It not only imparts knowledge but also fosters the motivation and insight needed to make lasting changes. This holistic approach has the potential to significantly improve the lives of individuals living with OCD and enhance their overall well-being.

The session-wise protocol and important content summaries are presented in Table 3.1. ***To get a better understanding of the activities performed in each session, refer to the Complete Therapy Script (Appendix D).*** It serves as a manual that includes a dialogue-based script between the client and therapist, providing detailed information

about the structured content of each session and the specific activities conducted with the clients.

Table 3.1 Session-wise Protocol

Session	Content	Homework
1	Understanding the Problem ● Knowledge is Confidence ● All about OCD	- Revise the content daily - Daily Activity Chart
2	Understanding the Mind ● Review of Daily Activity Chart & a Quick Recap ● Coping Mechanism ● TEA Model	- Revise both sessions' content daily - 30 Min. Physical Exercise (Cardio/Aerobics/Brisk-walk)
3	Understanding the Levels of Mind ● A Quick Recap ● Iceberg Theory of Mind ● Brain vs. Mind	- Revise till date sessions' content and 30 minutes of physical exercise
4	Understanding the Process of Habituation ● A Quick Recap ● Camel Effect ● The Process of Habituation	- Revise till date sessions' content and 30 minutes of physical exercise
5	Understanding the process of ignoring thoughts ● A Quick Recap ● Three short videos (Ignoring the Devil's voice within) ● Anxiety Curve	- Revise till date sessions' content and 30 minutes of physical exercise - Practice ignoring obsessive thoughts and avoiding compulsive acts
6	Understanding the Process of Neuroplasticity ● A Quick Recap ● Video & Discussions explaining the process of Neuroplasticity ● Video & Discussions about the principles of Neuroplasticity	- Revise till date sessions' content and 30 minutes of physical exercise - Continue the practice of ignoring obsessive thoughts and avoiding compulsive acts
7	Helping Tools ● A Quick Recap ● 4Rs ● 4Ds ● 3As	- Revise till date sessions' content and 30 minutes of physical exercise - Continue the practice of ignoring obsessive thoughts and avoiding compulsive acts
8	Preventing Relapse ● A Quick Recap ● Cortisol vs. Endorphin	- Revise till date sessions' content and 30 minutes of physical exercise - Continue the practice of ignoring obsessive thoughts and avoiding compulsive acts
9	● Revision/Summarizing/Doubt Clearance, if any	- Practice Laughing
10	● Revision/Summarizing/Doubt Clearance, if any	- Practice developing an Attitude of Gratitude
Follow-up Review Session – - After 1 month; and then after 3 months of the tenth therapy session		

Sessions Frequency & Duration –

- First 8 Sessions - Once, Weekly; Next 2 Sessions with a gap of 2 weeks from the last session
- Total No. of Sessions: 10
- Total Time-period: 12 Weeks
- Session Duration: 45 to 60 min.

3.8 STATISTICAL ANALYSES

The study utilized descriptive and inferential statistics to assess the effectiveness and significance of differences between and within the two treatment groups. By employing various statistical analyses, including Fisher's Exact and chi-square tests, repeated measures ANOVA, effect size and power analysis, and independent t-tests, the study aimed to provide valuable insights into the comparative efficacy of the Proposed Therapy with Pharmacotherapy (Experimental Group) and CBT-ERP with Pharmacotherapy (Control Group) for individuals with OCD.

Fisher's Exact and Chi-square tests were used to compare the distribution of participants across demographic variables such as age group, gender, education, occupation, marital status, and socioeconomic class, providing insights into potential differences in demographic characteristics between the two treatment groups.

Changes in the Yale-Brown Obsessive-Compulsive Scale (YBOCS) Total Score over time within each treatment group were analysed using repeated measures analysis of variance (ANOVA). This allowed for the investigation of significant changes in symptom severity over time within each group.

In addition to ANOVA, effect size and power analysis were conducted using Wilks' Lambda. Wilks' Lambda is a statistical measure used in multivariate analysis to assess the magnitude of treatment effects (Wilks, 1932). The effect size provides information about the practical significance of the observed differences, while power analysis estimates the probability of detecting an effect if it exists. These analyses helped to determine the impact of the treatment approaches on symptom reduction and the strength of the study findings.

Additionally, independent t-tests were used to compare mean YBOCS Total Scores between the two treatment groups at each time point, providing insights into the effectiveness of the Proposed Therapy with Pharmacotherapy compared to CBT-ERP with Pharmacotherapy in reducing OCD symptoms.

Furthermore, the attrition rate was considered, and a chi-square test was performed to compare dropout rates between the Experimental and Control Groups. Understanding attrition rates was important to ensure the validity and generalizability of the study findings. SPSS Version 26.0 was used for the analysis and Microsoft Excel 2021 for graphical representation.

CHAPTER 4

RESULTS AND DISCUSSION

This chapter presents a comprehensive analysis of the research findings, coupled with a detailed discussion, to address the objectives and hypotheses set forth in this study.

This study involved evaluating the effectiveness of two different treatment approaches, namely Proposed Therapy with Pharmacotherapy (Experimental Group) and CBT-ERP with Pharmacotherapy (Control Group), in reducing symptoms of obsessive-compulsive disorder (OCD). A total of 52 participants were included in the study, with 26 individuals assigned to the Experimental Group and 26 individuals assigned to the Control Group. The study employed various statistical analyses to examine the data. Chi-square and Fisher's Exact tests were conducted to compare the distribution of participants across demographic variables, such as age group, gender, education, occupation, marital status, and socioeconomic class. Additionally, repeated measure ANOVA analyses were performed separately for both groups to assess the changes in the YBOCS Total Score over time. The effect size and power analysis, measured using Wilks' Lambda, were reported for both treatment groups. Furthermore, mean comparisons of YBOCS Total Scores between the groups at each time point were conducted using independent t-tests. The attrition rate was also examined, and a chi-square test was employed to compare the dropout rates between the two groups.

4.1 RESULTS

PARTICIPANTS

Table 4.1 Distribution of Study Cases as per Treatment Groups

Treatment Group	N
Proposed Therapy with Pharmacotherapy (Experimental Group)	26
CBT-ERP with Pharmacotherapy (Control Group)	26
Total	52

Table 4.1 presents the distribution of study cases across two treatment groups. The experimental Group consisted of 26 participants receiving the Proposed Therapy with Pharmacotherapy, while the control group comprised 26 participants undergoing CBT-ERP with Pharmacotherapy. The total sample size for the study was 52 participants.

GROUP COMPARISON OF DEMOGRAPHIC VARIABLES
Table 4.2 Comparison of Treatment Groups on Demographic Variables
 (Experimental Group: n=26; Control Group: n=26; Total Sample: n=52)

Parameters		Group		Total	Chi-square Value	p-value
		Experimental	Control			
Age Group (yrs)*	18-40	19	20	39	NA	1.00
		73.1%	76.9%	75.0%		
	41-60+	7	6	13		
		26.9%	23.1%	25.0%		
Gender*	Female	12	14	26	NA	0.78
		46.2%	53.8%	50.0%		
	Male	14	12	26		
		53.8%	46.2%	50.0%		
Education*	Up to Higher Secondary	8	8	16	NA	1.00
		30.8%	30.8%	30.8%		
	Graduation/ Post-Graduation	18	18	36		
		69.2%	69.2%	69.2%		
Occupation	Student	5	5	10	2.40	0.49
		19.2%	19.2%	19.2%		
	Working	14	17	31		
		53.8%	65.4%	59.6%		
	Non-Working	2	0	2		
		7.7%	0.0%	3.8%		
	Homemaker	5	4	9		
		19.2%	15.4%	17.3%		
Marital Status*	Unmarried	11	8	19	NA	0.56
		42.3%	30.8%	36.5%		
	Married	15	18	33		
		57.7%	69.2%	63.5%		
Socio-economic Class*	Low + Lower Middle	21	21	42	NA	1.00
		80.8%	80.8%	80.8%		
	Upper Middle +High	5	5	10		
		19.2%	19.2%	19.2%		

*Applied Fisher Exact Test due to low frequencies

Table 4.2 indicates that the association between the groups was assessed using Fisher's exact test due to low frequencies in most of the categories. The comparison between the groups was assessed for variables such as age group, gender, education, marital status, and socio-economic class. The results showed no significant differences between the experimental and control groups for these variables (all $p > 0.05$), indicating comparable distributions. For the occupation variable, which had multiple subcategories, a chi-square test was conducted, revealing no significant association between the groups ($\chi^2 = 2.40$, $p > 0.05$). This suggests that the distribution of participants across different occupations was also similar in both groups. Overall, the statistical analyses indicate that there were no significant differences in the demographic characteristics between the experimental and control groups, ensuring a balanced representation of participants across various factors in the study.

FINDINGS IN THE EXPERIMENTAL GROUP

Table 4.3a Mean and SD of YBOCS Total Score in the Experimental Group at Baseline and Each Follow-up

Experimental Group			
YBOCS -Total	N	Mean	SD
Baseline	26	30.04	3.08
Post-treatment	24	14.58	4.43
1-month Follow-up	24	13.83	3.95
3-month Follow-up	24	14.63	4.44

Table 4.3a presents the mean and standard deviation (SD) of the YBOCS Total Score for the Experimental Group at different time points: baseline, post-treatment, 1-month follow-up, and 3-month follow-up. At baseline, the YBOCS Total Score was measured for 26 participants in the Experimental Group, with a mean score of 30.04 and a standard deviation of 3.08. This indicates the severity of obsessive-compulsive disorder (OCD) symptoms prior to the intervention. After the post-treatment phase, the YBOCS Total Score was recorded for 24 participants, and there was a significant reduction in

the mean score to 14.58 (SD = 4.43). This demonstrates the positive impact of the proposed therapy with pharmacotherapy in reducing OCD symptoms in the Experimental Group. During the 1-month and 3-month follow-up periods, the YBOCS Total Score remained relatively low and stable for 24 participants, with mean scores of 13.83 (SD = 3.95) and 14.63 (SD = 4.44), respectively. These sustained improvements suggest that the positive effects of the treatment were maintained over time and indicate the potential long-term benefits of the therapy. This finding highlights the effectiveness of the proposed therapy with pharmacotherapy in reducing OCD symptoms in the Experimental Group. The significant decrease in the YBOCS Total Score from baseline to post-treatment, along with the sustained improvements observed at the follow-up periods, further support the positive impact of the intervention.

Table 4.3b Repeated Measure ANOVA Analysis of YBOCS Total Score in Experimental Group

Source	Sum squares	df	Mean Square	F
Intervention	31937.51	1	31937.51	845.06*
Error	869.24	23	37.79	

* $p < 0.05$

Table 4.3b presents the findings of repeated measure ANOVA, which helps us understand how the treatment intervention affected the Yale-Brown Obsessive-Compulsive Scale (YBOCS) Total Score in Group A. The table consists of two key rows: "Intervention" and "Error." The "Intervention" row represents the overall effect of the treatment on the YBOCS Total Score. The sum of squares (31937.51) indicates the amount of variation accounted for by the treatment. This effect was found to be highly significant, as indicated by the associated F-value (845.06) and the p-value (<0.01). A high F-value and a small p-value indicate that the observed changes in the YBOCS Total Score are unlikely to have occurred by chance, strengthening the evidence for the treatment's impact. The "Error" row captures the unexplained variability or the parts of the score that were not influenced by the treatment. The sum of squares (869.24) associated with the Error term reflects the random fluctuations in

the scores that cannot be attributed to the treatment.

By analysing these statistical measures, we can determine whether the treatment intervention truly made a meaningful difference in the YBOCS Total Score or if the observed changes could have been due to chance. The analysis clearly indicates that the treatment had a significant impact on reducing the YBOCS Total Score in the Experimental Group, as evidenced by the highly significant F-value and the large magnitude of the treatment effect (as indicated by the sum of squares). In summary, the repeated measure ANOVA analysis provides compelling evidence that the treatment intervention was effective in reducing the YBOCS Total Score in the Experimental Group.

Table 4.3c Power Analysis and Effect Size of the Change in Experimental Group

Effect	Value	F	Hypothesis df	Error df	p-value	effect size	Power
Wilks' Lambda	0.07	93.46	3.00	21	<0.01*	0.92	1.00

* $p < 0.05$

Table 4.3c presents the findings of a power analysis and effect size calculation for the Experimental Group in the context of repeated measures ANOVA. The table includes several key measures: Wilks' Lambda, F-value, hypothesis degrees of freedom (Hypothesis df), error degrees of freedom (Error df), p-value, effect size, and power. Wilks' Lambda is used to test the null hypothesis that the groups do not differ significantly on the set of dependent variables. A smaller value of Wilks' Lambda indicates a significant treatment effect or a greater separation between groups. It ranges from 0 to 1, where a value closer to 0 indicates a stronger treatment effect or greater differentiation between groups, and a value closer to 1 suggests a weaker or non-significant effect. The significance of Wilks' Lambda is typically assessed using an F-test, which compares the observed Wilks' Lambda value to the theoretical distribution

of Wilks' Lambda under the null hypothesis. A smaller Wilks' Lambda value corresponds to a larger F-value, indicating a more significant treatment effect.

In this study, Wilks' Lambda, with a value of 0.07, indicates a highly significant treatment effect. This suggests that only 7% of the variance in the dependent variables (YBOCS Total Score) is not accounted for by the treatment, demonstrating a strong differentiation between the treatment groups. The F-value of 93.46 further supports the significance of the treatment effect. It indicates a substantial difference between the groups' means, indicating that the observed change is highly unlikely to occur by chance. The hypothesis df and error df represent the precision and reliability of the analysis. In this case, the values are 3 and 21, respectively, reflecting the degrees of freedom associated with the treatment effect and the variability in the data. The p-value, which is less than 0.01, indicates that the treatment effect is highly significant. This suggests that the observed change in the YBOCS Total Score is unlikely to be due to random variation. The effect size, measured by a value of 0.92, represents the magnitude of the treatment effect. This indicates a substantial impact of the treatment intervention on the observed change. The power of 1.00 implies a high probability of correctly detecting the treatment effect. It signifies that the study had sufficient statistical power to detect a true effect given the sample size and observed effect size.

In summary, Table 3c provides strong evidence for a highly significant and substantial treatment effect in the Experimental Group based on the findings of the power analysis and effect size calculation. These results support the effectiveness of the treatment approach used in the Experimental Group, highlighting its impact on the observed change in the YBOCS Total Score.

FINDINGS IN THE CONTROL GROUP

Table 4.4a Mean and SD of YBOCS Total Score in the Control Group at Baseline and Each Follow-up

Control Group			
YBOCS -Total	N	Mean	SD
Baseline	26	25.96	6.61
Post-treatment	16	15.00	4.46
1-month Follow-up	16	13.75	4.01
3-month Follow-up	16	11.94	4.88

Table 4.4a presents the mean and standard deviation (SD) of the YBOCS Total Score in the Control Group, receiving CBT-ERP therapy, an established gold standard treatment for obsessive-compulsive disorder (OCD). The baseline assessment shows a mean YBOCS Total Score of 25.96 with an SD of 6.61.

After the CBT-ERP treatment, there was a significant reduction in symptoms, as indicated by the lower scores at the post-treatment stage (Mean 15.00; SD 4.46), 1-month Follow-up (Mean 13.75; SD 4.01), and 3-month Follow-up (Mean 11.94; SD 4.88). It emphasizes the established status of CBT-ERP as a recognized and effective treatment option for individuals with OCD.

Table 4.4b Repeated Measure ANOVA Analysis of YBOCS Total Score in Control Group

Source	Sum squares	df	Mean Square	F
Intervention	16416.02	1	16416.02	236.83*
Error	1039.73	15	69.32	

* p< 0.05

Table 4.4b presents the results of the repeated measure ANOVA analysis conducted on the YBOCS Total Score in Group B, the control group receiving CBT-ERP therapy. The analysis aims to determine the significance of the treatment effect and assess the impact of CBT-ERP on symptom reduction. The intervention term, representing the overall mean of the YBOCS Total Score, shows a highly significant effect with an F-value of 236.83 ($p < 0.01$). This indicates that the CBT-ERP therapy has a substantial impact on reducing symptoms in the Control Group. The Sum of Squares for the intervention further supports this finding, with a large value of 16416.02. The error term reflects the variability in the YBOCS Total Score that is not explained by the treatment effect. The Sum of Squares for the error is 1039.73, indicating the residual variance within the data.

In summary, the repeated measure ANOVA analysis in Table 4b provides strong statistical evidence supporting the effectiveness of CBT-ERP in reducing symptoms in the control group.

Table 4.4c Power Analysis and Effect Size of the Change in Control Group

Effect	Value	F	Hypothesis df	Error df	p-value	effect size	Power
Wilks' Lambda	0.16	22.58	3	13	<0.01*	0.84	1.00

* $p < 0.05$

Table 4.4c presents the power analysis and effect size of the change observed in the Control Group, receiving CBT-ERP therapy. The significant Wilks' Lambda value of 0.16 ($p < 0.01$) indicates a strong treatment effect, demonstrating substantial symptom reduction. The F-value of 22.58 supports the significant treatment effect, and the effect size of 0.84 reflects a large improvement in symptom severity. The power analysis indicates a high probability of correctly detecting the treatment effect. Overall, the findings confirm the effectiveness of CBT-ERP as an effective treatment for obsessive-

compulsive disorder, as evidenced by the significant treatment effect, large effect size, and high power analysis.

SCORE COMPARISON BETWEEN GROUPS

Table 4.5 Mean comparison of YBOCS Total Scores between Groups at Baseline and Each Follow-up

YBOCS - Total	Experimental Group			Control Group			t-value	p-value
	N	Mean	SD	N	Mean	SD		
Baseline	26	30.04	3.08	26	25.96	6.61	2.85	0.009*
Post-treatment	24	14.58	4.43	16	15.00	4.46	-0.29	0.773
1-month Follow-up	24	13.83	3.95	16	13.75	4.01	0.07	0.949
3-month Follow-up	24	14.63	4.44	16	11.94	4.88	1.80	0.079

* $p < 0.05$

Table 4.5 presents the mean comparison of YBOCS Total Scores between the Experimental Group and the Control Group at baseline and each follow-up time point using a t-test and the p-value.

The analysis revealed a significant difference between the groups at the Baseline, suggesting that the Experimental Group had higher symptom severity before the treatment.

Post-treatment, both groups showed similar symptom reduction after the treatment.

At the 1-month Follow-up, the symptom reduction was maintained similarly in both groups.

At the 3-month Follow-up, there was a marginally significant difference between the groups in YBOCS Total Score suggesting a potential trend towards lower YBOCS Total Scores in the Control Group compared to the Experimental Group.

In summary, the analysis, based on t-test results, demonstrated significant differences between the groups at the Baseline, indicating variations in baseline symptom severity. Post-treatment and the 1-month Follow-up showed comparable reductions. However, at the 3-month Follow-up, there was a trend suggesting a possibly more favorable outcome for the Control Group.

ATTRITION RATE
Table 4.6 Comparison of Attrition Rate (Drop-outs)

Attrition	Group		Total
	Experimental Group	Control Group	
No	24	16	40
	92.3%	61.5%	76.9%
Yes	2	10	12
	7.7%	38.5%	23.1%
Total	26	26	52
	100.0%	100.0%	100.0%
Chi-square value - 7.20		p-value - 0.027*	

* p< 0.05

Table 4.6 provides a comparison of the attrition rates (drop-outs) between the Experimental Group and the Control Group. In the Experimental Group, 24 participants (92.3%) completed the study, while 2 participants (7.7%) dropped out. In contrast, the Control Group had 16 participants (61.5%) who completed the study, while 10 participants (38.5%) dropped out. The total sample size was 52 participants, with an equal number in each group.

The chi-square value of 7.20 with a corresponding p-value of 0.027 suggests a significant difference in the attrition rates between the two groups. The higher attrition rate in the Control Group indicates a greater number of participants discontinuing the study compared to the Experimental Group. The findings imply that the proposed therapy in the Experimental Group had a lower attrition rate, indicating better treatment adherence and participant satisfaction. The higher attrition rate in the Control Group may suggest challenges or factors that led to drop-outs, which could impact the

interpretation of the study's outcomes.

In summary, the attrition rate comparison reveals a significant difference between the Experimental Group and the Control Group, with a higher completion rate observed in the Experimental Group. This finding highlights the importance of considering attrition rates when evaluating the overall effectiveness and feasibility of the proposed therapy. The visual presentation is shown in Figure 4.1.

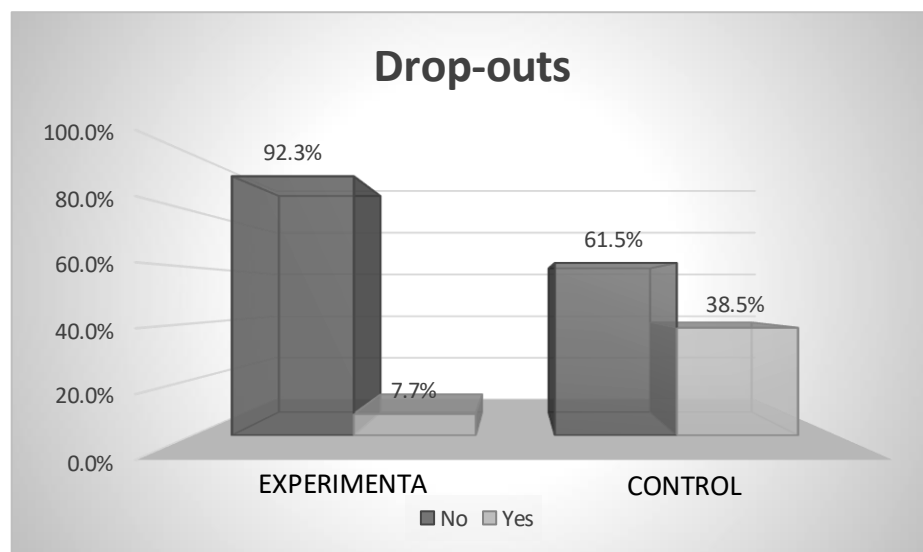


Figure 4.1: Attrition (Drop-out) Rate in Treatment Groups

4.2 HYPOTHESES TESTING OUTCOMES

The findings from hypotheses testing are outlined below, focusing on the effectiveness of the proposed therapy, its comparability to CBT-ERP, and the attrition rates within each treatment group.

Hypothesis 1: Proposed Therapy Efficacy

The effectiveness of the proposed therapy in reducing obsessive-compulsive symptoms among individuals with OCD was assessed using statistical analyses on the Yale-Brown Obsessive-Compulsive Scale (YBOCS) scores. The data underwent repeated measures ANOVA, revealing a significant reduction in YBOCS scores over time. The findings demonstrate the substantial efficacy of the proposed therapy in alleviating OCD symptoms.

Hypothesis 2: Comparability with CBT-ERP

A comparison of the effectiveness of the proposed therapy and CBT-ERP was conducted through an independent t-test on the YBOCS scores of both treatment groups. The results indicated no significant difference in the reduction of OCD symptoms between the two groups. This suggests that the proposed therapy showed comparable efficacy to CBT-ERP in managing OCD symptoms.

Hypothesis 3: Low Attrition in Proposed Therapy Group

The attrition rates between the proposed therapy and CBT-ERP groups were analysed using the Chi-square test. The results revealed a significantly lower attrition rate in the proposed therapy group compared to the CBT-ERP group. This indicates that the proposed therapy group had higher treatment acceptability and adherence, reducing premature dropouts often associated with anxiety-provoking exposure techniques.

Hypotheses Testing Summary

The hypotheses testing outcome supports the effectiveness of the proposed therapy in reducing obsessive-compulsive symptoms among individuals with OCD. The results

also demonstrate that the proposed therapy is comparable to CBT-ERP, a widely accepted treatment approach for OCD. Moreover, the low attrition rate in the proposed therapy group highlights its potential to enhance treatment retention and client satisfaction.

4.3 DISCUSSION

Objective-1

The initial objective of the current study was to create Neuropsychoeducational material for the proposed therapy. This material aimed to simplify complex neuroscience information, making it accessible to individuals with Obsessive-Compulsive Disorder (OCD).

The Neuropsychoeducational content included in the therapy was designed to provide OCD patients with an understanding of the biological and neurological underpinnings of their condition in straightforward terms. This content covered various fundamental aspects of OCD, such as diagnostic criteria, prevalence rates, etiological factors, the biological foundation of the disorder, and the brain circuitry involved. Additionally, the material explored the intricate connections between thoughts, emotions, and actions, helping patients grasp the interplay between these elements. It also delved into the structure and functioning of the mind, offering insights into how the mind processes information and influences behavior. The concept of habituation and extinction, which are crucial in understanding and managing OCD symptoms, was also explained in the content. To enhance engagement and comprehension, the material included visually appealing leaflets with creative illustrations. These illustrations were incorporated to make the learning process more engaging, interesting, and easy to grasp for individuals with OCD.

Psychoeducation refers to an intervention that systematically and structurally imparts knowledge about an illness and its treatment. The content of traditional

psychoeducation often focuses on issues including the cause of sickness, the course of therapy, the potential adverse effects of prescription medications, various strategies of coping, the education of families, and the growth of life skills (Swaminath, 2009).

Patients are better able to understand the underlying processes of their condition when neuroscientific knowledge is incorporated into the content of psychoeducation and the field is then renamed *neuropsychoeeducation*. It is basically a blended and reformed version of conventional psychoeducation integrating modern concepts of neurobiology like neuroplasticity, neurogenesis, the role of neurotransmitters, and brain-circuitry, including information about various physiological systems and processes in addition to the fundamental knowledge about the criteria, prevalence, aetiology and related theoretical constructs; and eventually, explaining their contributory role in the development of stress-related and other mental and behavioral disorders (Madaan & Mishra, 2021). A comprehensive understanding of their condition empowers patients to become well-informed about their illness, enabling them to make informed treatment decisions and fostering better adherence to treatment recommendations (Ekhtiari et al., 2017). An improved capacity for compassion and empathy, both towards oneself and towards others, is commonly cited as one of the most prominent benefits of neuropsychoeeducation. People have a greater chance of being able to let go of feelings of guilt and embarrassment as their comprehension of neurobiological principles increases (Miller, 2016). Together with knowledge about physiology and self-regulation, ideas like neuroplasticity, which refers to the brain's ability to change in response to new experiences, inspire feelings of optimism and encouragement (Miller & Minton, 2016). The incorporation of neuropsychoeeducation alongside established therapeutic approaches empowers individuals to shift from passive observers to active participants in their mental lives. This transformation allows clients to modify deeply ingrained responses, ultimately resulting in heightened hopefulness and diminished feelings of helplessness. Clients come to realize that despite the difficulties, change is achievable (Siegel, 2012).

The primary objective of incorporating neuropsychoeeducation into the proposed therapy for Obsessive-Compulsive Disorder (OCD) was to provide individuals with a clearer understanding of the intricate workings of the brain and neural networks, including the concept of neuroplasticity. This knowledge was intended to empower OCD patients by helping them recognize that the root of their challenges lies within themselves, rather than being solely attributed to external events or circumstances (Schwartz, 1996; Mataix-Cols & Marks, 2006; Tolin, Diefenbach, & Gilliam, 2010). The foundational knowledge offered in the neuropsychoeeducation sessions served several crucial purposes. First and foremost, it aimed to dispel any fears, misunderstandings, feelings of disgrace, or misconceptions that patients might have harbored regarding their disorder. By presenting them with basic information about OCD, including diagnostic criteria and prevalence rates, the sessions sought to demystify the condition and reduce the stigma often associated with it (Schwartz, 1996; Mataix-Cols & Marks, 2006). Moreover, the sessions offered advanced insights into several neurological and psychological aspects, encompassing topics such as neuroplasticity, learned helplessness, the anxiety curve, thought-action fusion, and the theory of hope. These concepts were intended to help patients overcome their internal conflicts and resistance to change. For instance, understanding neuroplasticity—the brain's remarkable ability to reorganize and adapt—offered hope and motivation for patients to embrace change and actively participate in their treatment journey (Shishikura, Kajiwarara, & Miyaoka, 2016).

Previous research studies have consistently highlighted the significance of psychological education in the treatment of OCD, emphasizing its role in enhancing treatment outcomes. Additionally, recent research evidence has shown that psychoeducation, particularly when integrated into self-treatment with exposure response prevention, holds promise for improving OCD symptoms (Shishikura, Kajiwarara, & Miyaoka, 2016).

In the present study, the proposed therapy consisted of a 12-week program that integrated neuropsychoeeducation as a fundamental component of the treatment plan for OCD. By providing patients with a comprehensive understanding of their condition and the underlying neurological and psychological factors, the therapy aimed to equip them with the knowledge and motivation needed to actively engage in their treatment and work towards symptom reduction and recovery. This approach was grounded in the recognition that enhancing patients' awareness and understanding of their condition can be a pivotal step towards successful treatment and recovery.

The session-wise neuropsychoeeducation content delivered during the psychotherapy has been presented below. ***For a detailed description, refer to the Complete Therapy Script (Appendix D).***

Session-1: The researcher explains how biological processes play a part in OCD, including the definition of OCD, its prevalence, its vicious cycle, its causes, the role of neurotransmitters, and potential treatments. Through this, clients come to understand that their issues are internal—caused by the illness they are experiencing—and not external. They are aware that they are not the only ones who experience this type of disorder. The client develops optimism and hopes that they will soon start receiving adequate treatment and recover.

Session-2: The researcher provides information regarding the psychological processes in OCD, including the fact that one cannot control physical situations; rather, one has to accept the situation; and describes the significance and usefulness of coping mechanisms. Further, the researcher clarifies the role of the psychologist and talks about the importance of psychotherapy for the treatment of OCD. The client gets the insight that circumstantial situations are not under our control. Thus, they learn the importance and utility of coping mechanisms. The client becomes clearer about what will happen in psychotherapy, its applications, and how it is going to alter their state of mind. In addition to this, the researcher explains the role of the mind, its components, and its working. The researcher describes the **TEA Model** and its application in the treatment of OCD, which evolved from the cognitive model of mental illness, initially

developed by Beck (1964). It operates on the premise that cognition (thinking), emotion (feeling), and behavior (action) are interconnected and mutually influence each other. Through this, the client understands the interconnection of thoughts, emotions, and actions; if one aspect of the mind changes, it will automatically change in the other two components of the mind. Additionally, the researcher recommends clients do some physical exercise daily as a homework task. It makes them comprehend that physical and psychological processes are interconnected.

Session-3: The researcher describes the three levels of the mind: conscious, pre-conscious, and unconscious by using the **Iceberg Theory of Mind**, taken from Freud's topographical model (1900, 1905), in which he described the features of the mind's structure and function. To make it clearer, Freud used the analogy of an Iceberg. The researcher also discusses defence mechanisms such as suppression and repression, as well as the concept of brain versus mind. The client learns about the different levels of the mind and realises that the roots of their disorder are in the unconscious mind rather than the conscious mind. They require the assistance of an expert to reach the level of the unconscious mind. The client comprehends that the unconscious mind is a repository for all forgotten memories, desires, thoughts, feelings, and unpleasant experiences. The painful memories stored there, if not processed sufficiently, can lead to a psychological disorder, in their case, OCD. The client understands the distinction, as well as the interconnection between brain and mind. The client recognises how the brain and mind, each play a role in the development of OCD. The brain is analogous to hardware, and the mind to software. Pharmacotherapy is required to treat brain malfunctioning, while psychotherapy is required to treat mind malfunctioning. Psychotherapy is similar to installing an anti-virus application in the unconscious mind. The client gets fair knowledge about the origin of OCD and how it can be controlled.

Session-4: The researcher describes the mind's automatic ignoring of the disturbing elements and helps the client understand the process of habituation, which the researcher explains using the camel effect (one cannot remove a thought from his mind by continuously repeating that thought) and the process of habituation (one's biological

and psychological mechanisms have the ability to habituate with the disturbing elements if they are presented again and again). The Camel Effect analogy is rooted in the Ironic Process Theory (IPT), a psychological concept indicating that when individuals deliberately attempt to suppress certain thoughts or emotions, the opposite of their intention often happens. In other words, the effort to avoid thinking or feeling something results in those thoughts or emotions surfacing more frequently and intensely. This phenomenon is sometimes referred to as "ironic rebound" or the "white bear problem." The concept was first studied in a laboratory setting by social psychologist Daniel Wegner in 1987. And the **Habituation Model** was originally given by Thompson and Spencer (1966); it is noteworthy to mention that it is an integral part of the Exposure and Response Prevention (ERP) process. Through these understandings, the client comprehends that ignoring a stimulus for an extended period of time reduces our biological and psychological responses. The client realises that when they have OCD, the same thought keeps replaying in their mind as if OCD is stuck on one song. The person can bypass that song or ignore that thought by not giving it importance, which will result in habituation.

Session-5: The researcher discusses the importance of consciously ignoring disturbing thoughts in the mind. Using the concepts of an anxiety curve, three short videos, and the metaphor of an angel's vs. devil's voice, the clients realise they are in control of their thoughts. Clients realise that they are not slaves to their thoughts, which they must follow, but that by not giving importance to unnecessary thoughts, they begin to fade away gradually through the process of habituation. With the help of an **Anxiety Curve** (as derived from the Habituation model), the client learns that anxiety is never fatal and that it naturally subsides over time even when no action is taken. After some time, the anxiety will begin to decrease on its own, and there will come a time when there will be no anxiety even in the presence of some OCD thoughts.

Session-6: Using a pair of videos, the researcher illustrates the concept of neuroplasticity, which involves the formation and modification of neural networks in the brain. The researcher explained various concepts in this session, including the

number of neurons in the brain, the process of neurons transferring messages to another neuron, the formation of neural networks following the concept of 'neurons that fire together, wire together,' synaptic connections, the breaking of old neural networks based on the principle of 'use it or lose it,' and also made the client understand how to separate the normal thoughts from OCD thoughts. Clients can easily understand the complex mechanism of **Neuroplasticity** (as explained by Schwartz and Beglaey, 2002), with the help of videos. They understand that neural networks are built adhering to the rule of "neurons that fire together, wires together." Habits are formed by repeatedly performing the same action, which causes repetitive firing in the same neural circuits. If a person wants to break a habit, they must stop doing the activity that will cause the established neural circuits to break. Clients also understand that the brain cannot tell the difference between real and imaginary. If a client visualises something repeatedly, it will generate the same neural networks that would have been generated if the task was actually performed. The client has created faulty neural networks in the brain by creating OCD thoughts and visualising them repeatedly, which can now be broken by ignoring OCD thoughts based on the rule of "use it or lose it." The individual recognises that he is distinct from his OCD thoughts.

Session-7: The researcher explains a few tools to deal with OCD thoughts. Various techniques viz. **4Rs** (Relabel, Reattribute, Revalue, Refocus) – as given by Schwartz and Gladding, 2011, **4Ds** (Delay, Drink Water, Deep Breathing, Distraction) – adapted from Fiore, Jaen, and Baker's quit-smoking program (2008), and **3As** (Awareness, Acceptance, Application) – borrowed from Bill and Bob's 12-step program, Alcoholics Anonymous (1989) are used to make the clients learn to assess their problem from a different perspective and also get a chance to review it again. They are also trained to trick their OCD thoughts by emphasizing something neutral or meaningful and are motivated by making them realize that now they know their disorder completely and have the capacity to handle it on their own.

Session-8: The researcher talks about how the stress hormone - cortisol and the happy hormone - endorphin work in the body. The client understands that cortisol is a stress

hormone which is secreted in our body automatically even while doing routine activities. Excessive cortisol can lead to psychosomatic disorders and OCD as well. Similarly, endorphins are happy hormones which are secreted naturally during exercise, laughter and being contented. Endorphins act as an antidote to OCD. The clients learn that their anxiety will certainly diminish if they exercise regularly, practice laughing every day and develop an attitude of gratitude.

Session-9 & 10: The final two sessions are held as follow-ups, one month and three months after the eighth session. During these sessions, the entire content is reviewed and revised to refresh the client's knowledge. They are encouraged to talk about the challenges they faced in between and are further supported and motivated to apply the learned processes of ignoring their obsessional thoughts.

As described above, the investigator successfully developed neuropsychoeeducation content for the proposed therapy and it is possible to conclude that the neuropsychoeeducation content of OCD in the proposed therapy for the treatment of OCD would be beneficial. The reason for this could be that when the neuroscience aspects are incorporated into the psychoeducational content, it helps the clients to grasp the fundamental and basic mechanisms of OCD. Getting in-depth knowledge makes them feel expert and confident, allowing them to be more amenable and make informed decisions about their own treatment practices. This basic and advanced knowledge assists them in eliminating or reducing their disorder-related fear, confusion, stigma, and myths. During the intervention, it was observed that patients were frequently capable to release feelings of shame and blame after gaining a clear understanding of various neurological concepts related to OCD; this helped them to stay motivated and comply with the process.

Objective-2

The second main objective of the present investigation was to develop motivation-enhancing content for the proposed therapy, which would include the identification and shortlisting of the best suitable components of Motivational Interviewing.

For this purpose, the researcher incorporated and synthesized pertinent elements of Motivational Interviewing (MI), which encompasses four overarching principles: expressing empathy, fostering the development of discrepancy, working with resistance in a non-confrontational manner, and supporting self-efficacy. These strategies have demonstrated their effectiveness by being more persuasive than coercive and more compassionate than confrontational approaches. MI is a therapeutic method that assists clients in resolving ambivalence and kindling their enthusiasm for change. It encourages clients to perceive the proposed therapy as a beneficial treatment and motivates them to maintain consistency in their efforts, thereby reducing the likelihood of dropouts. The core of MI lies in its ability to bring about behavioral changes by addressing ambivalence and harnessing intrinsic motivation, as opposed to relying on external motivation from family members or treatment providers. MI operates within a relational context deeply rooted in Carl Rogers' client-centered therapy (Rogers, 1959), emphasizing the judicious use of empathy and the embodiment of the "MI spirit," characterized by collaboration, evocation, and the preservation of client autonomy.

In the present investigation, the researcher applied five motivational techniques rooted in the principles outlined by Miller & Rollnick (2002) to cultivate patients' motivation for change. These techniques encompassed affirmative statements, open-ended questions, reflective listening, questions to elicit change talk, and supporting confidence to change. Each of these strategies played a pivotal role in fostering a desire for positive change among the patients.

Affirmative statements were strategically employed to recognize and validate the patients' strengths and efforts toward change. These statements conveyed appreciation for their determination and resilience, instilling confidence in their ability to embark on the path of transformation. For instance, phrases like "Your commitment to completing the assigned tasks reflects your unwavering determination" served to acknowledge and

reinforce the patients' resolve to change. **Open-ended questions** served as a cornerstone of the therapeutic interaction, allowing patients to actively participate in shaping the conversation. These questions were skillfully designed to elicit detailed and expressive responses from the patients, providing them with the opportunity to voice their thoughts and feelings freely. By posing queries such as "What prompts you to consider making a change?" practitioners encouraged patients to share their personal narratives and motivations for change. **Reflective listening** was a deliberate technique employed to demonstrate empathetic engagement with the patients' experiences. It involved attentively receiving and then paraphrasing the patients' statements, thereby affirming the practitioners' comprehension of their emotions and behaviors. Through reflective listening, practitioners conveyed their willingness to deeply connect with the patients' perspective, fostering mutual understanding and trust. **Questions designed to elicit change talk** shifted the focus from didactic instruction to the patients' own motivations for change. Practitioners skillfully prompted patients to articulate the reasons change was personally significant to them. By exploring questions like "Why do you believe addressing this disorder is necessary now?" or "What positive changes do you envision resulting from taking action?" individuals were encouraged to internalize and express their intrinsic motivations for transformation. **Supporting confidence to change** involved recognizing and reinforcing the incremental changes patients had already initiated. Practitioners made affirmative statements and posed questions that highlighted these achievements, ultimately boosting patients' self-assurance in their ability to continue progressing. For example, by saying, "It's clear you've been making significant efforts to resist compulsive behaviors. How have you managed to achieve this?" practitioners empowered patients to build confidence in their ongoing journey toward change.

In summary, these five motivational techniques, drawn from Miller & Rollnick's principles, were skillfully employed to kindle and nurture patients' desire for change. Through affirmative statements, open-ended questions, reflective listening, questions to elicit change talk, and supporting confidence to change, practitioners created a

therapeutic environment conducive to exploring motivations, strengths, and pathways toward positive transformation.

Relevance of using Motivational Enhancing Content in the Proposed Therapy: The integration of motivational enhancing content within the proposed therapy for Obsessive-Compulsive Disorder (OCD) holds significant relevance, as it plays a pivotal role in instilling intrinsic motivation among OCD patients, thereby enhancing treatment adherence and overall therapeutic outcomes. This incorporation of motivational techniques aligns with empirical findings that highlight the positive impact of combining Motivational Interviewing (MI) with Cognitive Behavioral Therapy (CBT) for OCD treatment (Guzick et al., 2021). One of the primary advantages of instilling intrinsic motivation through motivational enhancing content is its influence on patients' commitment to completing homework assignments and adhering to their medication regimen. OCD treatment often involves exposure exercises and behavioral interventions that require consistent practice outside of therapy sessions. Patients' intrinsic motivation serves as a driving force, encouraging them to actively engage in these exercises, which are essential for symptom reduction and overall recovery. Research findings have consistently indicated the promising outcomes of integrating MI techniques with CBT in the treatment of OCD. Notably, this combination has been associated with a reduction in the number of dropouts during the therapeutic intervention (Guzick et al., 2021). Patients seeking treatment for OCD often have concerns about the potential consequences of the intervention, including undesirable changes in behavior or fears of not experiencing any improvement. These apprehensions can significantly impact their motivation to engage in treatment. Studies conducted by Purdon & Rowa (2004), Rowa et al. (2014), and Selles et al. (2018) have shed light on the importance of addressing these concerns and enhancing patients' motivation to participate in treatment. Patients who are reluctant to confront their fears and resist engaging in behaviors that temporarily relieve their distress may exhibit lower motivation for standard CBT treatment. This hesitance is understandable, as OCD symptoms often revolve around the need to alleviate distress through compulsive

behaviors. The integration of MI as an extension or forerunner to CBT for OCD treatment has emerged as a valuable approach (Guzick et al., 2021). Guzick, McCabe, & Storch (2021) conducted research demonstrating the effectiveness of adding motivational interviewing to CBT for individuals with OCD. This approach proved beneficial, particularly for patients who did not fully benefit from CBT alone due to uncertainty about participating in treatment, non-adherence to exposure training, or dropout. These findings underscore the importance of motivational content as a complement to CBT for OCD. By instilling intrinsic motivation and addressing patients' concerns, this integrated approach enhances treatment engagement and effectiveness (Guzick et al., 2021). In the present study, the researcher successfully developed motivational content and incorporated it into the proposed therapy, aligning with the growing body of evidence supporting the integration of MI techniques with CBT for OCD treatment. This integration is expected to yield more beneficial and effective outcomes, ultimately improving the quality of care provided to individuals with OCD.

Objective-3

The third objective was to develop metaphoric content for the proposed therapy which involved creating a bank of metaphoric references in the form of short stories, symbolic ideas, fables, parables, folk tales etc.

A metaphor is a word or phrase that refers to one object in order to indicate or imply that it is comparable to another object. It appears that the use of metaphors assists the client in engaging in a search for meaning, thereby encouraging insight and generating viable outcomes. This may be due to the indirect and less terrifying nature of metaphors, which can assist in bypassing resistance and reaching the unconscious, which would otherwise be impossible. In addition to providing the client with the opportunity to reframe situations, therapeutic metaphors allow the client to view or respond differently to problems without risk. Because metaphors are indirect and less frightening, they

facilitate this by enhancing rapport and communication between the client and therapist (Stott et al., 2010).

Employing metaphors in therapy is highly powerful, and applying the correct metaphor can seem nearly miraculous at times. When the correct metaphor serves to bring on an "aha" moment in therapy sessions, the client's resistance and bewilderment appear to fade. Employing a great metaphor can transform a session and bring the therapist and client to a new level of collaboration while reducing defensiveness. Theorists have identified metaphor as a mechanism for people to comprehend, organise, and articulate reality (Lakoff, 2012). Furthermore, a tendency for metaphor use has been linked to better levels of emotional comprehension (Fetterman et al., 2016). Metaphor use has been highlighted by clinicians in therapeutic settings as a helpful technique for expression as well as good development (Finlay, 2016; McGuinty, Armstrong, & Carrière, 2014). Metaphors, for example, are a fundamental theme in modern therapeutic techniques such as Acceptance and Commitment Therapy (Stoddard & Afari, 2014), where they are used to conceptualise experiences, understand internal cognitive processes, define ideals, and problem-solving leading to action (Stoddard & Afari, 2014). The therapy situation, where metaphors play an important part in communication between counsellor and client, mirrors the pervasiveness of metaphor use in everyday discourse (Tay, 2016).

Pietrabissa et al. (2016) report promising OCD treatment results with Brief Strategic Treatment (BST). BST uses metaphors, analogies, and stories to make people feel and act differently. BST bypasses individual rational mechanisms to self-destruct the logic that imprisons the mind, breaking the vicious cycle that maintains the problem. Samantaray et al. (2019) treated a case of OCD with four CBT sessions based on case conceptualization using a metaphor to make exposure exercises easier to understand and follow. Metaphors can help clients adopt exposure-and-response prevention therapy (ERP) for OCD, according to Dutta & Marks (2019). Philip and Cherian (2021) used eight sessions of Acceptance and Commitment Therapy (ACT), which uses metaphors to convey its essential ideas, to cure OCD.

The following content explains the session-wise use of metaphors. ***A detailed narration of each metaphor has been given in Appendix E (Metaphor Bank).***

The first session is on ***‘Understanding the Problem’***. The therapist used metaphoric language to explain the complex bio-psycho-social concepts of OCD to the client. The whole therapy is based on the principle of ‘Knowledge is Confidence’. The therapist used three metaphors from everyday life to explain this concept: (a) *Students in the classroom*, (b) *Changing the flat tyre with Stepney*, and (c) *Spying during a war*. Later in the session, the therapist discussed OCD, its causes, symptoms, prevalence rate, and treatment. The therapist used the metaphor *Learn the name of your disorder* and the *Different reactions of society to physical and psychological problems* to explain all of these concepts. All of these metaphors explained how knowing something gives us confidence in our sense of self and ability to function; as a result, the overall quality of life improves.

The second session is on ***‘Understanding the Mind’*** i.e., the role of psychological processes in OCD. The therapist used the metaphors of darkness, rain, and winter to convey the idea that circumstances, most of the time, are not within our control. These metaphors were named *Situations: control, change or accept*. After that to explain the importance of coping mechanisms a metaphor named *Smaller or bigger glass* was used. Finally, the role of stress management was explained by quoting various examples in terms of *Plan A, Plan B, Plan C...*

The third session is about ***‘Understanding the levels of Mind’***. This was an attempt by the therapist to explain the three levels of mind — conscious, pre- or sub-conscious, and unconscious; and their respective roles in the onset and management of OCD. The metaphors - *Mind: An Iceberg*, *Biological immunity vs psychological immunity*, *Body garbage vs mind garbage*, *Installing anti-virus in the mind*, *Levels of treatment* and *Hardware vs software* were used to help make the concept more understandable.

The fourth session is about ***‘Understanding the Process of Habituation’***. Generally, in day-to-day life, with the prolonged repetition of a pattern, the intensity of that pattern

gets diminished. In order to explain this phenomenon, four real-life incidents were narrated to the client, namely, *the Smell of garbage*, *Working inside the sewage*, *The loud noise of the factory*, and *Houses near railway lines*.

The fifth session is about ***‘Understanding the Process of Ignoring the Thoughts’*** in which the client learns to consciously ignore disturbing thoughts with the help of metaphors like *Angel’s voice vs devil’s voice*, *Black dog vs white dog*, and *Injury pain vs treatment pain*.

The sixth session is on ***‘Understanding the Process of Neuroplasticity’*** in which the client learns the neurological concepts of wiring and rewiring of neuronal networks with the help of the following metaphors - *Neural speed*, *Learning a keyboard*, *Synaptic pruning*, *the same as the trimming of hair or plants* and *Neural pathways similar to the field pathways*.

The seventh session is on the ***‘Helping Tools’***. In this session, the clients learn about some techniques which help them to ignore, postpone or manage their OCD thoughts. In order to explain these tools following metaphors were used - *‘Making correct evaluations*, *Defocus to refocus*, and *Brain is a good slave but a very bad master*.

The eighth session is on ***‘Preventing Relapse’***. To explain this the role of Endorphins is elaborated. Endorphins are secreted through three main sources, which are, exercise, laughter and contentment. In order to intrinsically motivate the client, the therapist used the metaphor of *Fake It, till you make it* and the *Attitude of gratitude*. All these metaphors explain complex biological and psychological concepts in a very simple and easier manner. Also, it adds engagement and liveliness to the therapy, eventually leading to relapse prevention.

The last two sessions, the ninth and tenth, are primarily review sessions that are meant to help clients with their compliance problems and to keep them motivated.

Objective-4

The fourth objective was to develop a session-wise structured therapy by integrating components of neuropsychoeeducation, motivation, and metaphors in the basic framework of Cognitive Behavioral Therapy (CBT) for the treatment of OCD.

The concepts of neuropsychoeeducation, motivation, and metaphors have already been thoroughly explained. Neuropsychoeeducation assists the client in understanding and managing the problem on their own. Further, the therapist implements a variety of techniques to arouse clients' intrinsic motivation and assist them in identifying their capabilities. To accomplish this, the therapist makes extensive use of metaphors, which contribute to making therapy simpler and more engaging. All three components are blended and added to the basic framework of CBT to develop an effective therapy, which is presented in this project as a dialogue-based script between the client and therapist. ***The entire dialogue-based script is given in Appendix D (Complete Therapy Script).***

Session-wise structured therapy protocol (Table 4.7) of the proposed therapy is as follows -

Session 1: Understanding the Problem. In this session, the therapist focuses on helping the client develop a comprehensive understanding of OCD. The importance of knowledge is emphasized as a source of confidence. The therapist provides detailed information about OCD, including its symptoms, causes, and common triggers. The client is encouraged to ask questions and actively participate in the discussion. To reinforce learning, the client is assigned daily revision of the therapy content and instructed to maintain a Daily Activity Chart for the following week. The Daily Activity Chart serves as a valuable tool to monitor and evaluate the client's schedule at home. By using this chart, the therapist can gain insights into the client's daily routine and identify potential areas for improvement. It helps in assessing how effectively the client is utilizing their time, managing their responsibilities, and incorporating physical

exercise into their routine. This information allows the therapist to provide personalized guidance and support.

Session 2: Understanding the Mind. Building upon the knowledge gained in the previous session, the therapist begins by reviewing the client's Daily Activity Chart - identifying and discussing the scope of modification, and engaging in a quick recap of the previous session's key points. The prime focus of this session is to explore the client's understanding of their own mind and its role in OCD. The therapist discusses coping mechanisms. Coping mechanisms are those strategies which, if understood and applied tactfully, can simplify life and can enhance one's level of toleration to a much higher extent and provides them potency to adjust to any traumatic or distressing situations and get out of it without affecting their emotional well-being. Additionally, the TEA Model (Thoughts, Emotions, and Actions) is introduced as a framework to identify and address the cognitive and emotional components of OCD. The client is encouraged to revise the content of both sessions daily and given homework to engage in 30 minutes of physical exercises, such as cardio, aerobics, or brisk walking, as physical activity has been found to positively impact mental health.

Session 3: Understanding the Levels of Mind. In this session, the therapist conducts a quick recap of the previous sessions to reinforce understanding. The focus then shifts to exploring the different levels of the mind. The therapist introduces the Iceberg Theory of Mind, which illustrates the idea that the conscious and pre-conscious mind represents only a small portion of the overall mental processes, while the unconscious mind holds significant influence. The client is encouraged to reflect on how the conscious, preconscious, and unconscious aspects of their mind may relate to their OCD symptoms. The therapist further explains the distinction between the brain and the mind, emphasizing the role of thoughts, emotions, and neural processes in shaping OCD experiences. As homework, the client is instructed to revise the content covered in all previous sessions and continue engaging in 30 minutes of physical exercise.

Session 4: Understanding the Process of Habituation. Building upon the knowledge gained in the previous sessions, this session focuses on understanding the process of

habituation as it relates to OCD. The therapist begins with a quick recap to ensure comprehension. The therapist then introduces the concept of the Camel Effect, explaining how gradual exposure to anxiety-provoking situations without performing compulsions can lead to decreased anxiety over time. The client is encouraged to explore their own experiences with habituation and reflect on situations where they have observed a decrease in anxiety through exposure and response prevention. The therapist discusses the process of habituation in detail, highlighting the importance of persistence and consistency in overcoming OCD symptoms. As homework, the client is assigned to revise the content covered in all previous sessions and continue engaging in 30 minutes of physical exercise.

Session 5: Understanding the Process of Ignoring Thoughts. This session aims to help the client develop skills in ignoring intrusive thoughts associated with OCD. The therapist begins with a quick recap, ensuring the client's comprehension of previous sessions. The therapist presents three short videos illustrating techniques for ignoring the "Devil's voice within" and discusses strategies to manage anxiety associated with intrusive thoughts. The therapist introduces the Anxiety Curve, explaining how anxiety levels naturally rise and fall over time. The client is encouraged to practice recognizing and accepting anxious thoughts without engaging in compulsive behaviors. Homework includes revising the content covered in all previous sessions, engaging in 30 minutes of physical exercise, and actively practising the skill of ignoring obsessive thoughts while consciously avoiding compulsive acts.

Session 6: Understanding the Process of Neuroplasticity. This session delves into the concept of neuroplasticity and its implications for OCD treatment. The therapist begins with a quick recap to reinforce previous learnings. Through videos and discussions, the therapist explains the process of neuroplasticity, highlighting the brain's ability to reorganize and form new connections in response to experiences and behaviors. The therapist also explores the principles of neuroplasticity, such as repetition, focused attention, and emotional engagement, which can be utilized to rewire neural pathways associated with OCD. The client is encouraged to revise the content covered in all

previous sessions, engage in 30 minutes of physical exercise, and continue practising the skills of ignoring obsessive thoughts and avoiding compulsive acts.

Session 7: *Helping Tools*. This session focuses on introducing helpful tools and strategies that can aid in managing OCD symptoms. After a quick recap of previous sessions, the therapist introduces the 4Rs (Relabel, Reattribute, Refocus, and Revalue), which are cognitive techniques aimed at reframing obsessive thoughts. The therapist also presents the 4Ds (Delay, Drink water, Deep breathing, and Defocus) and the 3As (Aware, Accept, and Action), which are behavioral techniques that can be employed in response to obsessive thoughts and urges. The client is encouraged to practice integrating these tools into their daily life. The homework assignments encompass reviewing the material covered in all preceding sessions, dedicating 30 minutes to engage in physical exercise, and persisting in the practice of techniques aimed at disregarding obsessive thoughts and refraining from engaging in compulsive behaviors.

Session 8: *Preventing Relapse*. This session focuses on preventing relapse and consolidating the progress made throughout the therapy. The therapist conducts a quick recap to reinforce previous learnings. The session explores the impact of stress hormones, specifically cortisol, on OCD symptoms. The therapist also discusses the role of endorphins and strategies to increase their release, such as laughter and developing an attitude of gratitude. The client is encouraged to revise the content covered in all previous sessions, engage in 30 minutes of physical exercise, practice laughing, and actively cultivate gratitude as part of their daily routine.

Sessions 9 and 10: *Review & Consolidate*. These two sessions provide an opportunity for revision, summarizing, and doubt clearance. The therapist and client review the entire therapy content, ensuring a thorough understanding of the techniques and concepts presented. The client is encouraged to ask any remaining questions or seek clarification on specific topics.

Follow-up Review Sessions: After one month and three months from the tenth therapy session, follow-up review sessions are conducted to assess the client's progress, address

any challenges or concerns that may have arisen, and provide additional support if needed. These sessions serve to reinforce the skills learned during therapy and offer an opportunity for further refinement and adjustment based on the client's experience and feedback.

Sessions Frequency and Duration: The therapy sessions are structured with a specific frequency, duration, and total number of sessions. The therapy program consists of a total of ten sessions, with the first eight sessions scheduled once a week. This frequent engagement ensures consistent progress and allows the client to actively participate in their therapy journey. After the eighth session, there is a two-week gap before the ninth session, providing a brief interval for reflection and practice. Similarly, there is another two-week break between the ninth and tenth sessions. This carefully planned session frequency spans a time period of 12 weeks, allowing the client ample time to absorb and apply the techniques and concepts learned throughout the therapy process. Each session is expected to last between 45 to 60 minutes, providing ample time for thorough discussion and addressing any questions or concerns that may arise. The organized schedule and duration of the sessions aim to facilitate effective treatment and maximize the potential for positive outcomes in managing OCD symptoms.

Table 4.7: Session-wise Structured Therapy

Session	Content	Homework
1	Understanding the Problem ● Knowledge is Confidence ● All about OCD	- Revise the content daily - Daily Activity Chart
2	Understanding the Mind ● Review of Daily Activity Chart & a Quick Recap ● Coping Mechanism ● TEA Model	- Revise both sessions' content daily - 30 Min. Physical Exercise (Cardio/Aerobics/Brisk-walk)
3	Understanding the Levels of Mind ● A Quick Recap ● Iceberg Theory of Mind ● Brain vs. Mind	- Revise till date sessions' content and 30 minutes of physical exercise
4	Understanding the Process of Habituation ● A Quick Recap ● Camel Effect ● The Process of Habituation	- Revise till date sessions' content and 30 minutes of physical exercise

5	Understanding the process of ignoring thoughts ● A Quick Recap ● Three short videos (Ignoring the Devil’s voice within) ● Anxiety Curve	- Revise till date sessions’ content and 30 minutes of physical exercise - Practice ignoring obsessive thoughts and avoiding compulsive acts
6	Understanding the Process of Neuroplasticity ● A Quick Recap ● Video & Discussions explaining the process of Neuroplasticity ● Video & Discussions about the principles of Neuroplasticity	- Revise till date sessions’ content and 30 minutes of physical exercise - Continue the practice of ignoring obsessive thoughts and avoiding compulsive acts
7	Helping Tools ● A Quick Recap ● 4Rs ● 4Ds ● 3As	- Revise till date sessions’ content and 30 minutes of physical exercise - Continue the practice of ignoring obsessive thoughts and avoiding compulsive acts
8	Preventing Relapse ● A Quick Recap ● Cortisol vs. Endorphin	- Revise till date sessions’ content and 30 minutes of physical exercise
9	● Revision/Summarizing/Doubt Clearance, if any	- Continue the practice of ignoring obsessive thoughts and avoiding compulsive acts
10	● Revision/Summarizing/Doubt Clearance, if any	- Practice Laughing - Practice developing an Attitude of Gratitude
Follow-up Review Session – After 1 month; and then after 3 months of the tenth therapy session		
Sessions Frequency & Duration – - First 8 Sessions - Once, Weekly; Next 2 Sessions with a gap of 2 weeks from the last session - Total No. of Sessions: 10 - Total Time-period: 12 Weeks - Session Duration: 45 to 60 min.		

Objective-5

The fifth objective was to validate the efficacy of the developed therapy through psychometric ratings (YBOCS).

The consolidated results obtained from the statistical analyses showed a favorable response towards the effectiveness of the proposed therapy in alleviating symptoms of obsessive-compulsive disorder (OCD).

The mean and standard deviation of the YBOCS Total Score were calculated in the Experimental Group at different time points. At baseline, participants exhibited a high mean score of 30.04, indicating a substantial burden of OCD symptoms. However, following the intervention, a notable reduction in symptoms was observed at post-treatment (mean = 14.61), 1-month follow-up (mean = 13.83), and 3-month follow-up (mean = 14.83). These findings suggest that the proposed therapy, in conjunction with pharmacotherapy, led to a clinically meaningful decrease in OCD symptoms over time.

The significant sum of squares associated with the intervention in repeated measure ANOVA analysis implies that the treatment had a discernible impact on the YBOCS Total Score. This statistical evidence supports the notion that the observed changes in symptom severity can be attributed to the treatment rather than random variability. Such results lend further credence to the effectiveness of the proposed therapy with pharmacotherapy in mitigating OCD symptoms.

The minuscule value of Wilks' Lambda (0.07) indicates a substantial reduction in unexplained variance, indicating the potency of the treatment in accounting for the observed changes in the dependent variable. Furthermore, the substantial effect size (0.93) suggests that the proposed therapy resulted in a noteworthy clinical improvement in OCD symptoms. The high power value (1.00) reflects the study's robustness in accurately detecting the treatment effects.

Taken together, these findings provide compelling evidence for the efficacy of the proposed therapy with pharmacotherapy in amending OCD symptoms. The substantial reduction in symptom severity, supported by the ANOVA analysis and power calculations, highlights the clinical significance of this treatment approach. These results support the contention that the proposed therapy with pharmacotherapy holds

promise as an effective intervention for individuals stressed with OCD, ultimately enhancing their overall well-being and quality of life.

Objective-6

The sixth objective was to compare the effectiveness of proposed therapy in combination with pharmacotherapy, to that of CBT-ERP with pharmacotherapy.

The study's results indicate that there was no substantial disparity in the efficacy of the Proposed Therapy combined with Pharmacotherapy (Experimental Group) versus Cognitive- Behavioral Therapy with Exposure and Response Prevention (CBT-ERP) in conjunction with Pharmacotherapy (Control Group) in diminishing symptoms of obsessive- compulsive disorder (OCD). Although the comparative outcomes at the 3-month follow-up demonstrated somewhat superior results for the Control Group, it is essential to take into account the YBOCS total score values for the Experimental Group at this particular stage of assessment.

At the 3-month follow-up, the Experimental Group had a mean YBOCS Total Score of 14.83, with a standard deviation of 4.43. This score is significantly lower than the baseline score of 30.04, indicating a reduction in OCD symptoms. Although the improvement in the Experimental Group may not be as pronounced as in the Control Group, the scores are still within the range that indicates a significant reduction in symptoms. This suggests that the Proposed Therapy with Pharmacotherapy has the potential to be effective in the long term, but the benefits may take longer to fully manifest.

The analysis of the sum of squares values provides additional insights into the results. Comparing the ANOVA findings, both groups showed a significant main effect of time, indicating a reduction in YBOCS-Total Scores over the course of treatment. However, the sum of squares for the intervention was larger in the Experimental Group compared to the Control Group. This suggests that a larger amount of variance was explained by the intervention in the Experimental Group, indicating a potentially greater impact of the

Proposed Therapy with Pharmacotherapy. It is important to interpret these differences cautiously, considering the limitations of the study design, potential confounding factors, and the relatively small sample size. Larger-scale studies are needed to provide a more comprehensive comparison between the effectiveness of the Proposed Therapy and CBT-ERP with Pharmacotherapy in treating OCD and to further explore the implications of the sum of squares values.

In addition to considering the treatment outcomes, it is important to examine the baseline severity of OCD symptoms in both groups. The baseline YBOCS Total Score was higher in the Experimental Group (30.04) compared to the Control Group (28.71), indicating that the Experimental Group started with higher severity of symptoms. This difference in baseline severity could potentially have an impact on the final outcomes. Individuals with more severe symptoms at baseline may require more time or a different treatment approach to achieve comparable results to those with milder symptoms. Therefore, it is crucial to take into account the baseline severity of symptoms when interpreting the effectiveness of the interventions and their comparative outcomes.

To gain a more comprehensive understanding of the long-term benefits of the Proposed Therapy, it would be recommended to conduct follow-up assessments at 6 months and 1 year. These additional assessments would provide insights into the trajectory of improvement beyond the 3-month mark and whether the scores of the Experimental Group continue to decrease, potentially surpassing the levels observed in the Control Group. Long-term follow-up assessments would also allow for a more thorough evaluation of the sustainability of the treatment effects and whether any differences in outcomes between the groups become more apparent over time.

Furthermore, it is noteworthy that the attrition rate in the Experimental Group was significantly lower compared to the Control Group. Only 8% of participants in the Experimental Group as compared to 37% of participants in the Control Group were lost to follow-up. This discrepancy in attrition rates suggests that there may be underlying factors influencing the dropout rates and potentially impacting the reliability of the results. The high attrition rate in the Control Group raises the possibility that those

individuals who did not experience significant improvement may have prematurely discontinued the treatment. In contrast, the proposed therapy placed a strong emphasis on intrinsic motivation, which may have contributed to higher treatment adherence and lower dropout rates. Therefore, the scores obtained from the participants who completed the treatment in the Experimental Group may be considered more reliable compared to the Control Group. This difference in attrition rates between the two groups introduces the potential for bias in the results. It is plausible that the individuals who dropped out of the Control Group had poorer treatment outcomes, and their absence may skew the overall scores in that group.

4.4 SUMMARY

In summary, while the findings of this study suggest that the Proposed Therapy with Pharmacotherapy and CBT-ERP with Pharmacotherapy had comparable effectiveness in reducing symptoms of OCD, there are several important considerations. The potential impact of attrition rates on the results, as well as the differences in baseline severity, should be taken into account. The sum of squares values provides insights into the potential differences between the interventions, indicating a potentially greater impact of the Proposed Therapy. However, further research with larger sample sizes and long-term follow-up assessments is needed to confirm these findings and evaluate the robustness and generalizability of the interventions. By addressing these considerations, future studies can contribute to a better understanding of the effectiveness of the Proposed Therapy and its potential role as an alternative or complementary treatment option for individuals with OCD.

CHAPTER 5

CONCLUSION AND LIMITATIONS

This chapter delves into the synthesis of key findings, the conclusions drawn from the study, and an exploration of the limitations encountered throughout the research process. Providing a comprehensive overview, we present the study's contributions to the field of obsessive-compulsive disorder (OCD) treatment. Furthermore, acknowledging the inherent limitations enhances the context of the results and guides future research directions. The essence of this chapter offers a reflective exploration of the journey from inception to the conclusion of this study.

5.1 CHAPTERS SUMMARY

This study aimed to develop and validate a novel therapeutic approach for the treatment of obsessive-compulsive disorder (OCD) by prioritizing client empowerment through knowledge and intrinsic motivation. The research unfolded through various chapters, each serving a distinct purpose.

Chapter 1 - Introduction: This chapter provided an overview of the study, introducing the background and significance of OCD as a prevalent and debilitating mental health condition. It highlighted the challenges associated with current treatments, particularly Cognitive-Behavioral Therapy with Exposure and Response Prevention (CBT-ERP), and the need for an alternative approach to improve treatment outcomes and reduce attrition rates.

Chapter 2 - Review of Literature: The review of literature delved into existing research on OCD, exploring its chronic nature, the manifestations of obsessions and compulsions, and the marked anxiety associated with the disorder. The study also explored the shortcomings of conventional exposure-based therapies, which

subsequently led to the development of the proposed therapy. This novel approach incorporates elements such as neuropsychoeeducation, intrinsic motivation, and metaphoric language, all within the foundational framework of Cognitive-Behavioral Therapy (CBT).

Chapter 3 - Research Methodology: In this chapter, the research design employed in the study is comprehensively outlined. It consists of a two-group, pre- and post-intervention clinical trial design, where 52 participants diagnosed with OCD were randomly assigned to either the experimental group, receiving the proposed therapy, or the control group, receiving CBT-ERP. The statistical analyses used include Fisher's exact test, Chi-Square test, repeated measures ANOVA, effect size estimate using Wilk's lambda, and independent t-test, to rigorously assess the efficacy and comparative effectiveness of the proposed therapy.

Chapter 4 - Results and Discussions: This chapter presented the findings of the study, demonstrating the promising efficacy of the proposed therapy in reducing OCD symptoms, comparable to the outcomes observed in the CBT-ERP group. The incorporation of neuropsychoeeducation, intrinsic motivation, and metaphoric language in the proposed therapy was discussed in detail, highlighting their roles in empowering clients and facilitating self-directed behavioral change. The lower attrition rate observed in the proposed therapy group underscored the importance of knowledge and empowerment in enhancing treatment adherence and client satisfaction.

Chapter 5 - Conclusion and Limitations: This chapter charted the consolidated list of significant findings, the conclusions derived from the study, and an examination of the limitations encountered during the research journey.

Followed by an extensive list of references and relevant appendices including a detailed dialogue-based script between the client and therapist – the ***Complete Therapy Script (Appendix D)***, and a detailed narration of each metaphor used in the session, present as ***Metaphor-Bank (Appendix E)***.

5.2 CONCLUSION

After a thorough understanding of the results and discussions, the following conclusions can be drawn from this study:

1. **Development of an Integrative Therapeutic Approach:** The study successfully developed and validated an integrative and client-centred therapeutic approach for treating obsessive-compulsive disorder (OCD).
2. **Key Components of the Proposed Therapy:** The proposed therapy incorporates essential components, including neuropsychoeeducation, intrinsic motivation, and the skilful use of metaphoric language. Neuropsychoeeducation helps clients understand the intricacies of their condition, promoting informed decision-making and enhancing treatment engagement. Intrinsic motivation techniques foster clients' internal drive to initiate and maintain positive behavioral changes. The integration of metaphoric language provides a safe and expressive outlet for exploring unconscious processes, leading to greater insight development and improved coping strategies.
3. **An Effective Alternative:** The study's findings demonstrate promising efficacy for the proposed therapy in managing OCD symptoms. The outcomes obtained from the proposed therapy are comparable to those observed with the established gold standard treatment, Cognitive-Behavioral Therapy with Exposure and Response Prevention (CBT-ERP). This highlights the potential of the proposed therapy as an effective alternative or complementary approach to traditional CBT-ERP for OCD treatment.
4. **Low Attrition Rate and High Treatment Adherence:** One of the significant advantages of the proposed therapy is the observed low attrition rate. Clients in the experimental group displayed higher treatment adherence compared to those in the CBT-ERP group. The reduced attrition rate is attributed to the therapy's emphasis on empowering clients through knowledge and intrinsic motivation, reducing anxiety-provoking exposure techniques that often lead to premature dropouts.

5. Client Empowerment Therapy (CET): This integrative therapy is grounded in the motto "*Knowledge is Confidence*" and aims to empower clients through knowledge and intrinsic motivation. Given its major implications in imparting knowledge and fostering client empowerment, it is proposed that this therapeutic approach be named Client Empowerment Therapy (CET). CET aligns with the core principles of knowledge-based interventions and intrinsic motivation to optimize treatment outcomes and enhance clients' overall well-being.

6. Need for Further Research: While the initial results of the proposed therapy are encouraging, further research is warranted to validate its long-term efficacy and generalizability in larger and more diverse populations. Additional studies will provide essential insights into the sustainability of treatment effects over extended periods and the therapy's applicability to various cultural contexts.

In summary, the study's conclusion showcases the successful development and validation of Client Empowerment Therapy as a promising alternative to traditional CBT-ERP for the treatment of OCD. The therapy's focus on knowledge and intrinsic motivation fosters client empowerment, enhances treatment retention, and promotes positive therapeutic outcomes. By addressing the challenges of anxiety-provoking techniques and attrition rates associated with OCD treatment, CET contributes valuable knowledge to the field of OCD management and sets a foundation for more effective and client-centred interventions in the future.

5.3 LIMITATIONS

While this study provides valuable insights into the efficacy of the proposed therapy for obsessive-compulsive disorder, it is essential to acknowledge the below- mentioned limitations. Addressing these limitations through future research would strengthen the reliability and generalizability of the findings, ultimately advancing the treatment of OCD and improving patient outcomes. The limitations realised in this study are -

1. **Small Sample Size:** The study's relatively small sample size may limit the generalizability of the findings to a broader population. While the power analysis ensured adequate sample size, future research with larger and more diverse samples would enhance the reliability of the results.
2. **High Attrition Rate in CBT-ERP Group:** The higher attrition rate in the CBT-ERP group is consistent with the well-known challenges of this therapy. This discrepancy in attrition rates between the two groups may have introduced bias in the comparison of treatment outcomes. Future studies should employ different statistical measures to address this concern and ensure a fair comparison.
3. **Differences in Baseline Severity:** The differences in baseline severity between the experimental and control groups might have influenced the observed treatment outcomes. The Experimental Group's higher baseline severity could have contributed to greater symptom reduction, potentially confounding the interpretation of treatment effects. Future research should control for baseline severity to clarify its impact on treatment outcomes.
4. **Lack of Longitudinal Data:** The study's focus on a short-term follow-up at 3 months limits the understanding of the treatment effects' long-term sustainability. Future research with longer follow-up periods would provide valuable insights into the interventions' lasting effects and of any potential relapse over time.
5. **Single-Centre Study:** Conducted at a single centre, the study's results may not fully represent other clinical settings or populations. Replication of the study across multiple centres and diverse populations would increase the study's external validity.
6. **Lack of Blinding:** The study did not employ blinding procedures, potentially introducing bias in the assessment of treatment effects. Future research incorporating blinding protocols could enhance the study's methodological rigor.

5.4 SCOPE FOR FUTURE RESEARCH

The scope of further research includes conducting larger randomized controlled trials with diverse samples to enhance generalizability. Longitudinal studies with extended follow-up periods are needed to assess the long-term sustainability of the proposed therapy's effects. Comparative analyses with more evidence-based treatments also can offer insights into the therapy's superiority over other existing interventions for obsessive-compulsive disorder.

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LIST OF PUBLICATIONS

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Conference Date: 15-17 February 2023

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S.No. 1

Type: Copyright

Title of the Work: KNOWLEDGE IS CONFIDENCE - A Quick-fix for Psychological Disorders

Registration No.: L-95972/2020

Dated: 20th October 2020

Registering Authority: Copyright Office. Govt. of India

S.No. 2

Type: Copyright

Title of the Work: NEUROPSYCHOEDUCATION - An effective tool to destigmatize mental illnesses

Registration No.: L-102912/2021

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Registering Authority: Copyright Office. Govt. of India

INFO SHEET

ID No. _____

Date: _____

Personal Details

Name (Optional):

Age:

Sex: Male ☐ Female ☐

Marital Status:

Education Background:

Occupational Background:

Annual Income: Less than 2 Lacs ☐ 2 - 5 Lacs ☐ 5 - 10 Lacs ☐ Above 10 Lacs ☐Type of Family: Nuclear ☐ Joint ☐**Research specific questions**

Diagnosis:

Duration of illness:

Age of onset of illness:

Past history of mental illness (If any):

Past/Present history of medical illness (if any):

Past/Present history of psychotherapeutic or medical treatment (if any):

Signature

Information will be used strictly for academic purposes only.

INFORMED CONSENT

You are being invited to participate in a research study conducted by ATUL MADAAN at Lovely Professional University, Phagwara. Before you decide to participate, it is important for you to understand the purpose of the study, the procedures involved, potential risks and benefits, and your rights as a participant. Please read the following information carefully and feel free to ask any questions you may have.

Study Purpose:

The purpose of this study is to develop, evaluate, and validate the effectiveness of a proposed therapy for obsessive-compulsive disorder (OCD) by integrating components of Neuropsychoeeducation, Intrinsic Motivation, and Metaphoric language within the conventional method of treatment. The study aims to assess the impact of the proposed therapy on OCD symptoms and treatment outcomes and compare it to the established gold standard treatment, cognitive-behavioral therapy with exposure and response prevention (CBT-ERP).

Procedures:

If you agree to participate in this study, you will be randomly assigned to either the experimental group receiving the proposed therapy or the control group receiving CBT-ERP alongside ongoing pharmacological management. You will undergo assessments to evaluate your OCD symptoms, including questionnaires and interviews. The therapy sessions will be conducted by trained professionals and will involve discussions, educational materials, and exercises aimed at reducing OCD symptoms and improving overall well-being. The therapy sessions will have a duration of 45 to 60 minutes per session and will be conducted once a week. The total study duration is expected to be three months.

Risks and Benefits:

Participating in this study may involve some risks, such as the potential for emotional discomfort or distress during therapy sessions. However, the therapy approaches utilized in this study are established treatments for OCD and have been shown to be effective in reducing symptoms. The potential benefits of participating in this study include a possible reduction in OCD symptoms, improved quality of life, and contributing to the advancement of knowledge in the field of OCD treatment.

Confidentiality and Data Protection:

Your participation in this study will be kept strictly confidential. All data collected during the study will be stored securely and accessed only by authorized personnel. Your personal information will be coded to ensure anonymity and will not be disclosed to anyone outside of the research team without your explicit consent, except as required by law.

Voluntary Participation and Withdrawal:

Your participation in this study is completely voluntary, and you have the right to withdraw at any time without providing a reason. Your decision to participate or withdraw will not affect your current or future medical care, treatment, or benefits.

Consent:

I have read and understood the information provided above, and I voluntarily agree to participate in this research study. I understand that I can withdraw my participation at any time without penalty or loss of benefits. I have received a copy of this informed consent form for my records.

ਮੁੜੇ ਤਪਰੋਕਤ ਜਾਨਕਾਰੀ ਹੜਿੰਦੀ ਮੇਂ ਸਮਝਾ ਦੀ ਗੜ੍ਹੈ ਟੈ ਔਰ ਮੈਂ ਅਪਨੀ ਝਕਛਾ ਸੇ ਝਸ ਸ਼ੋਧ ਮੇਂ ਭਾਗ ਲੇਨੇ ਕਹਲਾਏ ਸੜਮਤ ਹੂੰ।

ਮੈਨੂੰ ਉੱਪਰਲਿਖਤ ਜਾਣਕਾਰੀ ਪੁੱਜਾਬੀ ਲੜੱਚ ਸਮਝਾਈ ਗਈ ਹੈ ਅਤੇ ਮੈਂ ਆਪਣੀ ਇੱਛਾ ਨਾਿ ਇਸ ਾਧੇ ਲੜੱਚ ਭਾਗ ਿੈਣ ਿਈ ਸਲਹਮਤ ਹਾਂ।

Participant's Signature: _____ Date: _____

Researcher's Signature: _____ Date: _____

APPENDIX – C

Yale Brown Obsessive Compulsive Scale (Y-BOCS)

NAME _____ DATE: _____

Note: Scores should reflect the composite effect of all the patient's obsessive compulsive symptoms. Rate the average occurrence of each item during the week up to and including the time of interview.

1. Time spent on obsessions	0 hr/day	0-1 hr/day	1-3 hr/day	3-8 hr/day	> 8hr/day
Score:	0	1	2	3	4
2. Interference From Obsessions	None	Mild	Definite but manageable	Substantial impairment	Incapacitating
Score:	0	1	2	3	4
3. Distress from Obsessions	None	Little	Moderate but manageable	Severe	Near constant, disabling
Score:	0	1	2	3	4
4. Resistance to Obsessions	Always resists	Much resistance	Some resistance	Often yields	Completely yields
Score:	0	1	2	3	4
5. Control Over Obsessions	Complete control	Much control	Some control	Little control	No control
Score:	0	1	2	3	4

Obsession subtotal (add items 1-5) _____

Item Range of Severity

6. Time spent on Compulsions	0 hr/day	0-1 hr/day	1-3 hr/day	3-8 hr/day	> 8hr/day
Score:	0	1	2	3	4
7. Interference From Compulsions	None	Mild	Definite but manageable	Substantial impairment	Incapacitating
Score:	0	1	2	3	4
8. Distress From Compulsions	None	Mild	Moderate but manageable	Severe	Near constant, disabling
Score:	0	1	2	3	4
9. Resistance From Compulsions	Always resists	Much resistance	Some resistance	Often yields	Completely yields
Score:	0	1	2	3	4
10. Control Over Compulsions	Complete control	Much control	Some control	Little control	No control
Score:	0	1	2	3	4

Compulsion subtotal (add items 6-10) _____

Y-BOCS total (add items 1-10)

Total Y-BOCS score range of severity for patients who have both obsessions and compulsions:

0-7 Subclinical 8-15 Mild 16-23 Moderate 24-31 Severe 32-40 Extreme

COMMENTS: _____

COMPLETE THERAPY SCRIPT

Session-1
UNDERSTANDING THE PROBLEM



Knowledge is Confidence!

Therapist: To begin with, let me quote a phrase – ‘Knowledge is Confidence’.

The rest of the therapy sessions and treatment will completely revolve around this one very simple but significant line which is '**Knowledge is Confidence**'. This very line is the base of the treatment. As we will continue our sessions further, you will not only deeply understand what I am trying to explain here but also apply it effectively and efficiently in your life.

Listen and try to understand the concept of 'Knowledge is Confidence' with this sentence very carefully - *The more informed or knowledgeable I am about a subject, the more confident I become and the better I am able to competently apply that knowledge to make my life healthier and thus better.*

Now let me elaborate and explain this to you in simpler terms.

For example, recollect any of your college or school memory. Imagine your classroom and answer these simple questions. In your classroom, I suppose there must be some students who were more knowledgeable, who not only had the knowledge but were also used to interacting with the teachers. Generally, where did these students sit in the class?

Client: At the front seat?

Therapist: Yes, and if there were these studious kids in your class, then on the flip side, I suppose there must be another category of students as well, who possessed less knowledge, ones who did not interact with the teachers. Now, where did these students sit?

Client: At the back?

Therapist: Absolutely correct. And not only at the back, just to avoid eye contact with the teachers, they also used to hide behind other students' backs as well. Am I right?

Client: Yes.

Therapist: Okay, now let's imagine another scene.
First, tell me do you know how to drive a car?

Client: Yes.

Therapist: Okay, do you also know how to change the car's stepney? The extra tyre?

Client: Yes.

Therapist: So usually, those individuals who know how to drive a car, also know how to change the stepney. Now if hypothetically, a person is driving through the highway at night and unfortunately the tyre of his car gets flat. Well, usually it's very difficult to get any help on the highways. In this type of situation, any person would feel anxious and worried. But to the contrary, if that individual is aware that he has a spare tyre in his car and knows how to change the flat tyre, obviously he'd have a tough time but at least he won't get into a dilemma or feel anxious and helpless. He will take out the spare tyre, put his efforts into changing the flat tyre and continue his journey smoothly.

Now the next and last scene.

Have you ever noticed that when there are two countries at war, they send their spies to stealthily invade their enemy's country and dig up as much information as possible such as the location of their bomb mines, the number of their weapons and gun-powder, their artillery and other equipment and also the location of their troops. If my agent is able to collect all this information and hand over it to me, imagine how confidently my soldiers will lead the war because they will know where the bombs are placed, where to attack and where to be cautious.

To the contrary, imagine I have no knowledge about all the aforementioned things. Then how will my soldiers cross their enemy's border?

Client: They'd be less confident/anxious/scared.

Therapist: You are absolutely right. So, with these three scenarios, I have tried to make you equipped with the fact that be it any situation, *a child in the classroom, a driver passing through the highway or a war between two countries*. There is only one thing similar in every situation. What is it? The **KNOWLEDGE**. If there is knowledge, there is confidence and if one lacks confidence, it is due to the absence of knowledge.

Therapist: Can you please tell me your occupation?

Client: XYZ.

Therapist: Do you work confidently in your occupation?

Client: Yes.

Therapist: Why do you think that is?

Client: Because I know my work/I have been doing it long enough/ I obtained a degree in it and have experience...

Therapist: So what you are telling me right now is that, because you know your job well or you have enough knowledge about it, you are able to do it confidently?

Client: Yes.

Therapist: This is exactly what I have been explaining to you. Just like your job/work, if you are aware of every aspect of your disorder, won't that make you knowledgeable about it and hence confident?

Client: Yes.

Therapist: Do you remember your first OPD session with me? Where we discussed your case and I took your detailed case history, and now in this session, we are discussing your case further and from this very day your therapy sessions are being commenced.

In both sessions can I assume that you must have noticed at least one thing that is, whatever things I am trying to make you understand, I am doing it with full confidence? Isn't it?

Client: Yes.

Therapist: Why is that? Why am I so confident? Because I have full-fledged knowledge about your disorder and now let's assume that I transferred my knowledge to you, then? Won't you become as confident as I am at present or the way you are confident at your work?

Client: Yes.

Therapist: Hence can I draw this conclusion that if you gain full knowledge about your disorder, assuming this disorder to be your enemy and you obtain the internal information about it, like - Its cause, its entire modus operandi, ways to handle it, in fact, what if I tell you that you can get every possible knowledge about it, even then, will you be worried or anxious? Will this disorder still hamper your life?

Client: No.

Therapist: So, this is not just your treatment, this is your training which will make you efficient and I can assure you one thing I am going to make you *perfect, confident and well-versed*. I often mention out of amusement that after the completion of this 'training' you will not only be perfect at getting over your disorder but will also be able to share your experience with others suffering from a similar disorder and guide them to a certain extent. So in a way, I will be transferring all my knowledge about this disorder to you.

I have been trained to make you the better version of yourself. And I can confidently ensure you that you will get better. I am not experimenting with this therapy on you. I have been doing this for so many years and I have seen such tremendous results that have made me confident and certain in this procedural therapy that you will be okay.

Now I want you to jot down some words so that in a gist you can remember what has been taught to you. You can write in any language you are comfortable with, be it English, Punjabi, Hindi or any other.

(These are the following instructions that will be given by the therapist make the write down some points in a notebook provided)

Write down in one line only *(The therapist dictates to the client the below-mentioned points)*

- School-student-sitting-front-back
- Car-highway-puncture-stepney
- Countries at war-spies

The reason I am making you write this down briefly is that these are your keywords, when you will go home and read these lines, which I will be asking you to do as your homework, your mind will automatically remember these stories and lines that we discussed.

Generally, there is a theory of learning, that, if you have heard/attended a lecture from someone, you are likely to retain only 25-30% of it, but if you write that down, make keywords, notes and rehearse regularly for a few days, then you will retain at least 70-80% of what you have heard. That is why I will ensure that whatever things I am discussing with you, I make you jot

down some keywords for them so that you can remember what was taught at the exact moment when you read those keywords.

So, our first topic, *Knowledge is confidence* is now complete.
Let's begin with our second topic of the day.

First of all, tell me the name of your disorder.

Client: OCD

Therapist: What is the full form of this disorder? It's okay, I just want you to try and tell me whatever you think the full form might be. Don't worry if you think it might be wrong as it is not a test.

Client: XYZ

Therapist: So, the full form is - *obsessive compulsive disorder*

We will now try to understand what this word means.

But first, imagine that hypothetically, I am at a war with China. So, China's president, its lieutenant, general, and whomever they are (Wang, Jong, Un, Lee, Ling etc.) all are present during that war. Now isn't it obvious that being a citizen of a different country, I will find their names difficult to pronounce or understand? But wouldn't it be necessary for me to do so? After all, I am at war with them? So, I have to remember the name of my enemies, lest, how will I fight a war with them?

Similarly, in our case, OCD is our enemy, no matter how tough its name might sound, it is inevitable for me to learn it otherwise how will I fight it? Isn't it?

Now coming back to the meaning of OCD.

O stands for *obsessive*

C stands for *compulsive*

D stands for *disorder*

Obsessive means an obsession, a type of thought, idea or image that is stuck in my head and keeps on ruminating in my mind without my control over it. That particular thing is stuck in my thought process and it dominates me and my other thoughts.

The *compulsive* term is derived from a word called "compulsory", which means obligatory. For instance, you might remember, on your exam days, there were some compulsory questions that had to be attempted. Similarly, compulsive means an act or a ritual that is mandatory for you and you are compelled to complete it no matter what. Now ritual can be any act that is done in a pattern set by you. For example - hand washing compulsion and that too in a ritualistic manner, repeatedly checking things (door locked, lights off etc.), keeping everything in order and symmetry etc.

(Note for the therapist- name the rituals specific to the client)

So, what is the reason that you continuously engage in these compulsive acts? It is because of the sense of relief you get after completing the ritual. Right?

So obsessive is related to *thoughts* and compulsive means a particular *behavior* done to ease one from the ruminating and never-ending anxious thoughts.

Disorder means disarray or chaos that is related to an individual's obsessive thoughts and behavior (compulsive ritual).

Now I think you can relate to it - You experienced a thought that caused you anxiety which compelled you to engage in a compulsive ritual.

(Note to the therapist- try to relate to the client by giving him an example related to his own ritualistic behavior)

So, our first step was learning the name of your disorder. Let's move ahead now.



4 + 1 Diagnostic Criteria

This is my perception that if I say you have OCD, and you agree to it without knowing how I diagnosed you with this disorder will be unethical for me and at some point immoral for you. so for your understanding especially, I have created diagnostic criteria for OCD which I call the 4+1 criteria.

(the above lines will help the therapist to make the client understand his disorder well and also build a good rapport with the client)

So there are 4 points – *Intrusive – Uncontrollable – Illogical – Distressing*
And +1 means all the four above factors and *Compulsive behavior*

Let me explain what these words mean in layman language.

‘Intrusive’ means forcefully, without my will, a thought entering my mind. So, there are some unwanted thoughts or images that enter your mind and cause you distress.

‘Uncontrollable’ means the thoughts that enter my mind are so powerful that even though I put so much effort into controlling them, I am unable to do so. These are out-of-control, unmanageable thoughts.

‘Illogical’ means irrational or unreasonable thoughts without any obvious rationale. One important thing here is that the individuals themselves are aware and feel that their thoughts are illogical.

‘Distressing’ means something that causes anxiety, sorrow or pain. And in your case, you experience all this at an elevated extent at some point in your day. Right?

Correct me if I am wrong.

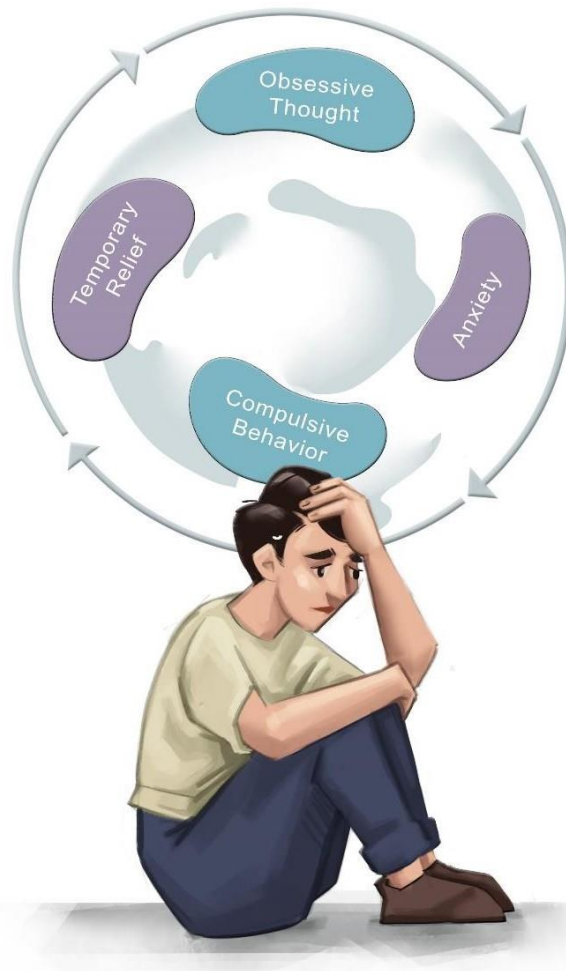
Is there a persistent feeling of "why me?" Does it occur to your mind that there are billions of people out there, then why am I facing such distress? Why are other people not engaging in some sort of ritual to complete a task? Why me then? Am I upset-minded? Why do I behave in such a manner? Am I abnormal? If other people will find out how I behave what will they think of me? Isn't it?

Hence, these illogical things cause me a lot of distress and make me anxious and sad throughout the day.

Therefore, to get out of these distressing thoughts, I have to act ‘compulsively’ in order to comfort my anxious mind.

This is the criteria for OCD and if anyone qualifies for this ‘4+1 criteria’ then that signifies that the individual is suffering from obsessive-compulsive disorder.

This thought process causes a never-ending circle which is called ‘the vicious circle of OCD’.



The Vicious Cycle of OCD

In a nutshell, a thought or image intrusively gets into my mind, these thoughts are uncontrollable and illogical which makes me anxious and in order to get out of these distressing thoughts, I have to act out a compulsive behavior and this behavior brings relief in my mind. But again, that same or another thought intrudes my mind and the circle of OCD continues throughout the maximum part of the day. This is known as the vicious circle of OCD.

Our next topic is to understand that how many people are affected by this disorder. Have you ever seen any other person with OCD?

Client: No/very rare.

Therapist: Does that mean that this disorder is a rare disorder? If you have never seen a person with OCD in your entire life, then isn't it obvious that it has to be a rare disease?

Client: Yes.

Therapist: Okay, let me ask your opinion on the number of people in your city that you think suffer from OCD? How many people would you guess?

Client: Very rare, may be 20 to 25 people.

Therapist: Now allow me to make you understand the percentage with evidence on the same. Have you ever heard about WHO? It stands for World Health Organization, a specialized agency which is recognized internationally, that surveys the world on health-related issues and diseases and it is a very renowned institution. When WHO provides its report on any health-related matter, that report is accepted all over the world. The reason World Health Organization is acclaimed is that it surveys not just a single city, but a number of cities and then publishes facts, and the percentage of people affected by a particular disorder, along with statistics and evidence. Likewise, the WHO surveyed people all over the world and reported that the percentage of people affected by OCD is 1% to 3%. This signifies that while surveying various cities they found out that each city has at least 1 to 3% of people who are affected by OCD. This implies that out of 100 people, every 1 to 3 people suffer from OCD. So accordingly, if I want to know how many people from my city has this disorder, I can figure that out easily as I know that the percentage is somewhere between 1 to 3%. Well, I'll be modest here, so if I take a lower side of the percentage, say 1.5%, then, out of every 100 people, 1.5 people suffer from it? So, according to 1.5% of people, out of 20 Lac of people, 30,000 individuals suffer from OCD? Isn't it?

Do you know why I took the figure of 20 lacs? It is because in our city, Jalandhar, according to the 2011 population census, the population is 20 lacs.

(Note to the therapist- relate to the client by providing the statistics according to your own city)

Isn't it shocking? That 30000 people from this very small city have OCD. Sounds unbelievable No? Let me provide you with evidence for this statement.

Right from my very first day being employed in this hospital, I have maintained an excel file where I have a complete record of my clients seen to date along with the diagnosis. Due to the confidentiality clause, I will not be able to show any of my client's credentials but I can show you the average 'number' of OCD patients I have seen every month. In this file, there are so many names of various disorders, like dissociative, depressive, delusional, ADHD, pseudo-seizures, schizophrenia etc. Now I am only going to show you the ones with OCD and as you can see, there are abundant. If you are aware of how the excel file works, with a shortcut (CTRL+F) I can find out the total number of clients till date that were diagnosed with OCD. As you can see, just in a month I have seen more than 30 cases. Although this is genuinely hard to believe, that is why I have shown you this evidence to make you understand that, if only I alone am seeing so many OCD clients on almost a daily basis in this small town, then this provides a confirmation that the report by WHO is legit and this disorder is very common indeed, and how we thought that only 20-25 people are affected by it.

(Note to the therapist- this is just an example of how you can build the confidence of the client in your therapy and also make him feel a little bit relaxed that it is not a rare disorder and motivate them to get better)

Now this might have entered your mind that I provided you evidence and you even accepted it, but again, how is one supposed to digest the fact that if 30,000 people alone in your city

suffer from this disorder, then why haven't you heard about them ever? Why hasn't anyone told you about it or why is this the first time you are even coming across the word OCD?

There is a reason for it which I will make you understand. When we get sick, feel feverish, or our blood pressure increases or we have a headache/migraine or any other illness, what is the most common thing that people do when they encounter other people? They tell people they're not well. If they meet 25 people in a day then they speak about their illness to all those 25 people and if someone calls them, even then they announce their sickness, their high blood pressure, high sugar, whether they took a leave, what the doctor prescribed and what not. Why is that? It is because of the reaction they receive from others, their sympathy, their considerations and their polite responses like - *Oh! How'd that happen? Let me know if you need my help. What can I do for u? I can cover that shift for you. You must take proper rest. Here are some of my home remedies, you will definitely feel better. Take good care of yourself.*

All these kinds of responses have made it customary that whenever someone falls sick, they tell everyone about it because it is human nature to feel cherished when sympathized. Now to the contrary, when you tell people about your OCD, what kind of responses do you receive?

Client: They do not understand it.

Therapist: Then what do they say?

Client: I am mad/getting crazy

Therapist: Yes, just because people do not have knowledge about this, so whenever you try to talk about these habits, they usually say that this is your misconception, you have gone mad, you are just over-analyzing things, you don't try controlling them etc. After hearing all this, an individual who is going through such distress thinks that instead of understanding my problem or sympathizing with me, people are instead criticizing, naming my disorder a mere misconception. Why did I even tell them about my condition? This reaction becomes the main reason that people do not like to share their distress with others. This is why we haven't heard much about OCD. Everything comes to the point that in our society people are not aware of this disorder which makes it next to impossible for the sufferer to share their problem, because they have experienced it that if they will speak about it, no one is going to sympathize or help them in any way. They feel as though they already are so much in discomfort, people will aggravate their grief and despair. Now, OCD is such a disorder that if a person looks at your face, can he tell if you suffer from OCD?

Client: No.

Therapist: if you won't tell anyone, can they guess you have OCD?

Client: No.

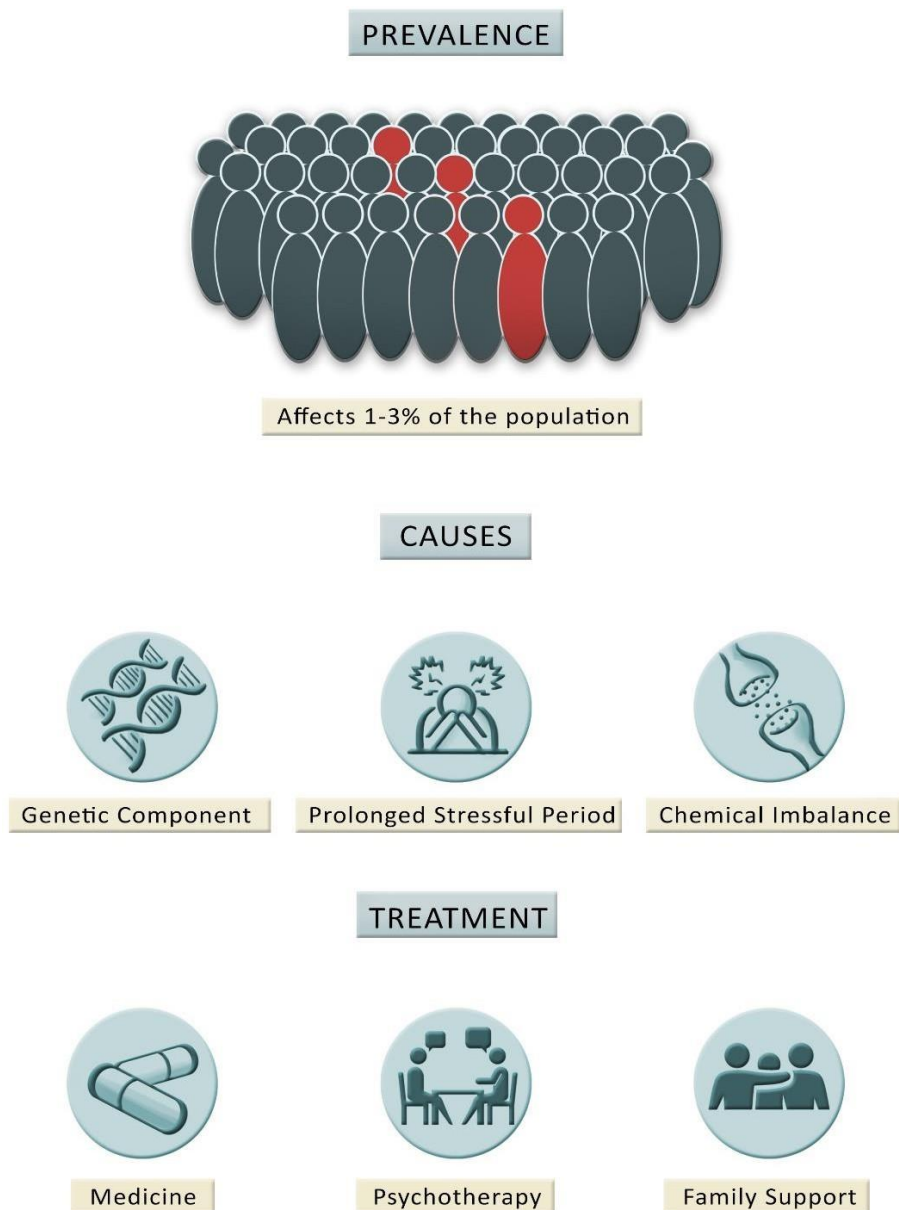
Therapist: This is why. No one can judge it from one's face and nobody shares it. Therefore, you cannot distinguish a normal person from one with this disorder, despite the fact that there are thousands of them. So, what is the thing that you could conclude from this? It is, that you are not alone in suffering from this disorder; there are many people just like you who go through the same level of distress. This is a very common disorder. Do you trust me now?

Client: Yes.

Therapist: Good, now let us recollect all that we did so far. The name of your disorder and its full form, its diagnostic criteria, the vicious circle of OCD, and its prevalence rate.

Is everything clear till here?

Client: Yes.



Obsessive-Compulsive Disorder (OCD)

Therapist: Today, we have obtained knowledge about so many things, so I feel there is one more very significant thing that we must discuss as well - What causes OCD?

Well, there is no obvious evidence yet that suggests the reasons for the existence of OCD. Although, there were various theories reported during different time spans, which were later researched. The very first reason discovered was the genetic reason. It is believed that OCD is hereditary, which means that one of my ancestors had this disorder which was transferred to me via genes. Even though this theory was found true in many people but there still were many exceptions. Then, the second theory stated that if there had been a very stressful period or a traumatic experience in one's life prevalent for a longer duration either in childhood or any other stage of life, it can also cause this disorder. Even this theory could not be proven 100%, therefore, more research was undertaken in order to explore further possibilities. According to the next theory, there are some chemicals in the brain. If these chemicals get imbalanced, they can contribute to the cause of OCD. You should understand a thing that in our body there are several enzymes, chemicals and hormones, and mostly all of these are operated from our brain. So, on this aspect there are some chemicals in our brain such as serotonin, if it gets imbalanced, might cause OCD.

Whatever the cause might be, our focus should be on getting better and we are already on it. But still, why am I familiarizing you with all these facts? - Because "*Knowledge Is Confidence*".

There shouldn't be any doubt left in your mind about this particular disorder. Otherwise, your brain will continuously ruminate that question "HOW?" and I am here to eliminate all your doubts.

Now the question arises that we have discussed and understood the significant facts about OCD. But what about its treatment? There are three levels of treatment to this – Medicines, psychotherapy, and the family support.

Now, why do medicines and psychotherapy simultaneously? Since it is not yet confirmed if a chemical imbalance causes disturbance in thought processing or if this thought process leads to the chemical imbalance. Therefore, we carefully treat both levels to get the best possible result. Through medicines, the chemicals can be balanced and via psychotherapy, we handle thought processes. So both of these work collaboratively.

Now, if we are able to treat this disorder through medicines and psychotherapies then what is the need for family support?

Because of all of the things I'm discussing with you, if your family members are aware of them, they will be able to support you even more and remind you of them on a regular basis. You will only come to see me once a week for an hour. Because you will be spending the majority of your time with them, your family will have the most influence over you. It will provide you with numerous benefits if your family members can grasp the same information and assist you in overcoming this disorder as a co-therapist. The second advantage is that just as you were anxious and concerned about your behaviour and problem, your parents and family members were as well. As a result, this therapy will not only guide you but also your family members in a systematic manner, easing their minds.

Just like any other school class, in this class too you will be given homework after every session.

Write down the homework in your notebook – (1) Revise the content daily without any excuse. (2) I will provide you with a ‘daily activity chart’ in which you have to fill in your hourly activities on a daily basis until our next appointment.

There is a revision method that I usually ask my clients to follow-

Like I made you write down the important things in this notebook. What you have to do is, keep this notebook by your bedside and every night, before going to sleep, just spend 10 minutes revising it. During your revision, close your eyes and recollect visually through your mind’s eyes and try to remember exactly what we discussed.

(End of the session)

Session-2

UNDERSTANDING THE MIND

(After greeting the patient)

Therapist: Did you revise the previous session's content? Are you regularly taking your medicines? Did you fill out the daily activity chart?

(To be asked one by one)

Client: Yes.

(If the client says 'No', ask for the reasons and be assertively firm about any non-compliance)

Therapist: Any doubt or query related to the previous sessions or any other thing you'd like to discuss?

Client: No.

(If the client says 'Yes', then first it is mandatory to clear their doubts and concepts)

(Revise the previous session by asking the clients questions related to it and asking them about their understanding of it. Also, review the filled daily activity chart and suggest modifications, if required; this is basically to assess, what the client has apprehended and also to make them attentive and participative in every session)

Therapist: So as of today, we will not be discussing any problems, instead we will direct our attention and focus only on the solutions. If we keep on discussing the issues again and again, it won't solve anything. We have already started working on the solution, so keep this very clear in your mind that this therapy is not a headache medicine which will improve the pain within 2-3 hours or days. Rather this is a very systematic process, you will definitely feel better, but you have to be patient for a few weeks at least.

In the initial couple of sessions, I will try to make you understand some basic concepts so that when we discuss the application of this theory practically, it will be very easy to make you to comprehend those things because your foundation will be well-built. Therefore, in the current session, I am going to ask you some very fundamental daily-life questions which you will have to answer me.

When it gets dark at dusk, and you enter your room, what is the first thing that you'll do?

Client: I will switch on the light.

Therapist: Hypothetically, it's raining outside and you have to go out, what will you do?

Client: I will use an umbrella.

Therapist: It's freezing, you feel very chilly, what will you do?

Client: I will wear jacket/ warm clothes/ use a quilt.

Therapist: Very well, so I asked you three very simple questions and you responded in a simple yet straightforward way. Do you know these simple things have a very deep and insightful meaning to them? Let's discuss how.

I asked you about three things -DARKNESS –RAIN –COLD

If we look at these things from a different perspective, did you try to control or fight with these three things?

Client: No.



Solution Focused Approach

Therapist: In fact forget trying, you didn't even imagine it being a possibility. Why is that? You didn't even consider controlling the dark, or ask the rain to stop for a while or didn't ask the cold to subside. Nothing as such was thought or done, right? Because we know that these are the circumstances or situations, and these conditions are out of one's control/, it is literally impossible to direct them.

For the – DARKNESS – RAIN – COLD. What I did do instead? I turned on the tube light, used an umbrella, and wore a warm sweater. It means that rather than fighting with these situations, I found some other alternatives which made these circumstances either inapplicable to me or their effect was reduced significantly. For instance, when it was dark, you switched on the light, and the darkness disappeared totally. In the case of rain, you used an umbrella, some drops of rain did touch you but you didn't drench in rain and it was manageable. For cold, you wore a sweater which stopped the cold. Obviously, the weather didn't change but you made it bearable.

Hypothetically, if you would have requested the rain - "Please stop for a while, because I have some important task to complete" would it stop? Then you would have shouted at it, "I am telling you to stop, I have to go out and do some chores, why the hell won't you stop?" Then what? Will it stop? Now you get more agitated and screamed and threw objects or stones towards the clouds and yell at them to stop. What will happen? Will it stop raining?

Client: Of course not.

Therapist: Why is that? Because this is a situation over which I can exert no control. Normally, in life what do we do? Most of the time we try to fight our circumstances. One is very well aware that these situations cannot be governed; even so, we curse and struggle with the situations time and again. Actually, life is very simple. Now, simple in what context? If I comprehend that I cannot be in command of my circumstances, then the only thing left for me to do is *accept* the situation. After accepting that situation, I *figure out* one way or the other to simplify my life and deal with the situation that arises.

For instance, there is a bottle of water, and a small glass. Right?

Imagine I open this bottle's cap a bit and the water starts dripping from the bottle (drop by drop), now what will happen after a while?

Client: The water will start filling the glass.

Therapist: What's next?

Client: The water will fill up to the glass's brim.

Therapist: Then?

Client: Water will start falling out of the glass.

Therapist: Okay, good. Now my question to you is - What should we do to stop the water from falling out of the glass?

Client: We can tighten up the bottle's cap or, when the water is filled up, we can keep the bottle aside.

Therapist: Okay, so now the drill is that you have to assume that this bottle is my circumstance, and as I specified earlier with the examples of darkness-rain-cold that the circumstances cannot be changed or controlled. I cannot do anything about the bottle part, now I will repeat my question to you, what should I do in order to stop the water from flowing out of the glass?

Think about it, this is all the process of therapy. All these conversations we are having right now the therapy. You will understand later how this will work but currently focus on this hypothetical situation. Don't worry, just try, and give as many answers as possible, it need not be correct; I am here to help you if you won't be able to answer. This is just a general discussion, not an examination where there is a fear of failing.

Now all the things you asked me to do, I cannot do because the bottle is my "situation", which I cannot change. Now think differently and tell me what should I do instead.

Client: I give up/can't think of anything else/don't know what to do.

Therapist: When you can't control the rain, didn't you still come up with a solution to prevent yourself from getting drenched? You used the umbrella, didn't you? So, think of something now too.

Can we use a BIGGER GLASS?

What did I tell you? That we aren't supposed to change any aspect of the bottle, other than that anything can be done. Can't I use a bigger glass instead of a smaller one to hold the bottle's water?

cannot change my situation but isn't it possible that the situation gradually but eventually changes on its own?

For instance, when we talked about darkness, it is evident that we cannot change the darkness but isn't it imminent that the darkness will subside, and the dusk will change into dawn within 6 to 8 hours? Well, eventually night has to turn into the morning at some point. In case of rain, if I'll ask the rain to stop it won't, but within one to two hours or so wouldn't it stop on its own? Now we talk about cold, again, it won't go away if I'll ask it to but it's inevitable that the seasons have to change on their own.

This specifies that "CHANGE IS THE LAW OF NATURE"

Now I don't know when the circumstances will change, within an hour, a day or maybe more than that but this means that change is imminent but its duration or period cannot be defined. So what I did here is that I used a bigger glass creating the possibility that the water will fill up the new glass, without falling out of it.

But there is another possibility as well; when the glass was smaller, the water was filling up to the edge, causing me anxiety, panic, and inability to think straight as to what to do next and so forth. Because when we get overwhelmed, our brain often stops processing effectively and we are unable to figure out a way to get out of the distressing circumstance. Now what we did is we replaced the smaller glass with a bigger one, even now the water is dripping, but because

my glass is large, I have an advantage i.e. *TIME*, when one has time, it is easy to analyse the situation with a calm state of mind, eliminating the risk of making hasty decisions and comprehend well, that whatever circumstance I am stuck with, I can figure out an approach and make an informed decision and can prevent the distress from happening. In our case, the time will enable me to find, not just a single solution but I can discover multiple solutions in case anyone doesn't work in my favor and then rework accordingly. So what this bigger glass will do is, buy me some time to make a calculated decision. All of this is possible only when my mind is serene, which is possible only if I have additional time to scrutinize my situation and ultimately all of this goes back to having a bigger glass.



Psychotherapy strengthens our Coping Mechanism

Now there are two possibilities - First is that, due to the glass's bigger size, it might contain the entire bottle's water and the water won't fall out of the glass. What this implies is, although I

For a better understanding of this, imagine the 'darkness' situation again. I enter a room, it is dark inside, the first thing I do is switch on the light and make the darkness subside. Now imagine there is a power cut, what then?

Client: Light a candle?

Therapist: Suppose, you are unable to find the candle because it's too dark and you don't remember where the candle is. Then?

Client: I can use the flashlight on my mobile.

Therapist: Your phone's battery is dead. Now?

See, what you are doing right now is finding out various ways to overcome your situation, right? But when is this possible? Only when you have a clear and calm mind and you have sufficient time as well.

There is one more aspect to this instance. Just like you cannot control your situation (e.g., cannot control the darkness, rain etc.), similarly, even I cannot help you govern your circumstances. Then why are you here? What is then my duty as your therapist? Simply, I will help replace your small glass with a bigger one.

We have been talking about this glass for so long. What is the implication of this glass? In our language, we call this glass the 'Coping Mechanism'.

Coping mechanisms are those strategies which, if understood and applied tactfully, can simplify life and can enhance one's level of toleration to a much higher extent and provides them potency to adjust to any traumatic or distressing situations and get out of it without affecting their emotional well-being.

Though I cannot help to change your circumstance, I will definitely work on you and just like we studied the concept 'Knowledge is Confidence', similarly, in this psychotherapy process, we will work in such a way that your coping mechanisms will enhance and get stronger with every passing situation. I will first make you understand all about coping mechanisms and its concept. That is why I am stressing the fact that the initial two to three sessions will be solely on the theories and later sessions will focus more on the practical aspects.

Now let's proceed further, tell me what am I called profession-wise?

Client: Psychologist.

Therapist: Do you know what a psychologist is called in Hindi language?

Client: Yes/No.

Therapist: ‘Manovaigyanic’ (मनोवैज्ञानिक). This word is made of two words – Mann + Vaigyanik (मन + वैज्ञानिक). Vaigyanik means ‘Scientist’. So, in this way, I am a scientist of mind/mood/mann. And what is this ‘mann’?

For example, when we say, I don’t want to exercise because I don’t have the mood (मन) for it. These are just words, today I’ll make you understand theoretically what it actually means.

As human beings, we exist in 2 domains – the biological domain, and the psychological domain

Now let’s understand these in depth. The biological domain consists of our body parts, for instance, our eyes, nose, ears, kidneys, lungs, heart, liver etc. Our second domain, which is the psychological, can be understood via a model, which is called TEA Model. Now let us see what this model says -

TEA: T = THOUGHT, means cognition (Soch), E = EMOTION, means feelings (Mehsoos karna), and A = ACTION, means behaviour (Vyavhaar)

Keep this thing in your mind that mood (मन) is nothing, but the integration of these three components – Thought, Emotion and Action.

So, this means that one is my biological domain, which consists of all my body parts and the other is my psychological domain, which is related to my mental processes (मन), which comprises three things, which are **T**hought, **E**motion and **A**ction i.e. my thinking, my feelings, and my behavior.

Right after we wake up, one or the other *thoughts* keep on ruminating in our mind and when we are not thinking about anything, even then we are thinking. Isn’t it? Our mind is never free of thoughts or thoughtless. Thoughts never end. An individual is always occupied with one thought or another.

Humans experience various *emotions/feelings* from the start of their day till the end. The emotions range from happiness, sadness, anger, irritation etc.

Third thing, we tend to be in *action* from the very moment we wake up.

When we are inactive, even then we are into some action. For instance, when one asks, what were you up to? And you respond, ‘nothing, was just sleeping’, so sleeping in itself is an action. If you say, you were just sitting, so again, sitting is an action too. Therefore, we continuously indulge in one action or another throughout the day. Hence, from morning till night, we are preoccupied with our thoughts, emotions and actions.

Therefore, can we say that my thoughts, emotions, and actions keep working 24 hours? So, just as my biological body works 24 hours a day, so does my psychological domain is also active 24/7.

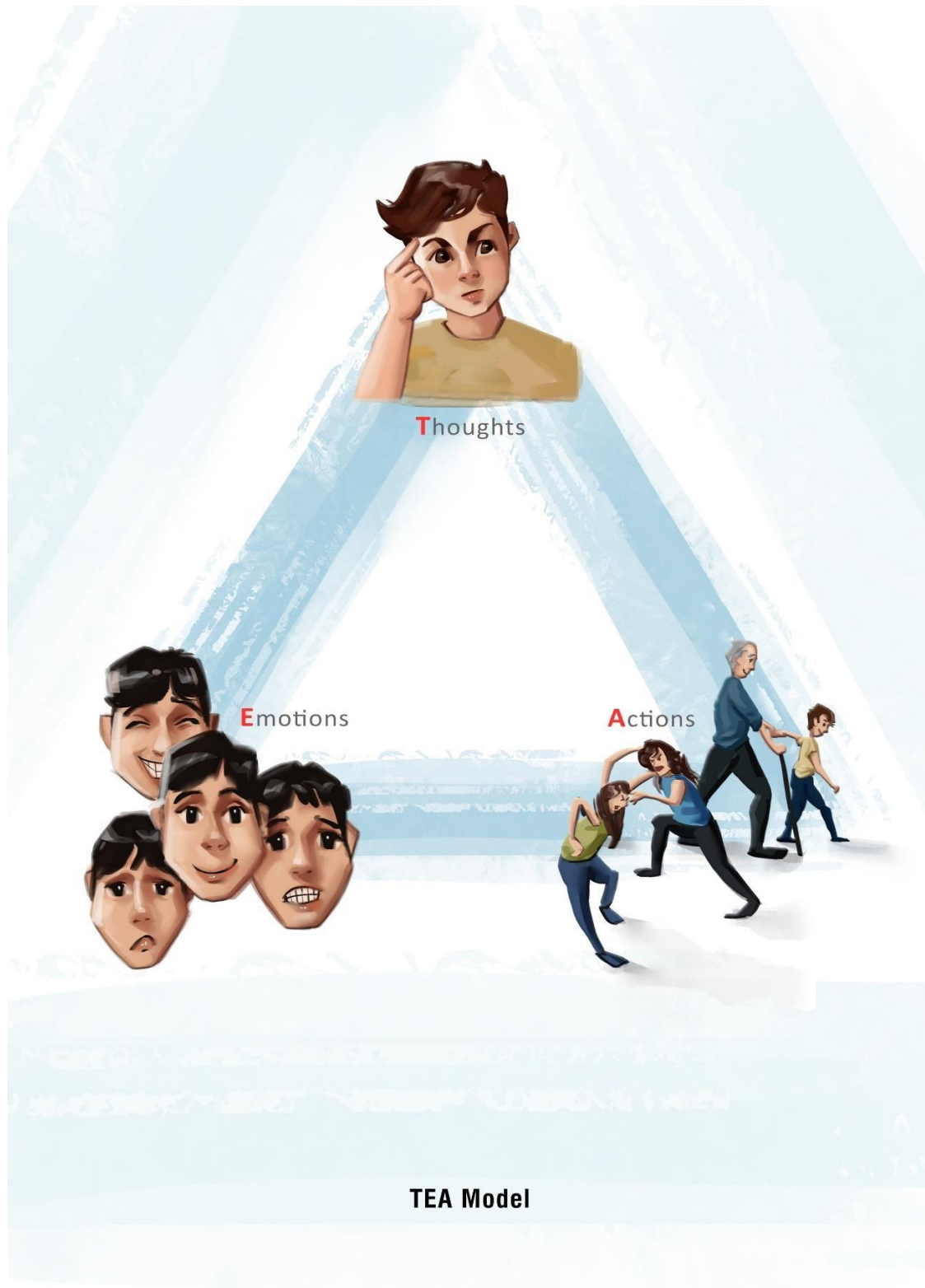
Your disorder, OCD, comes under which domain?

Client: Psychological.

Therapist: Absolutely. And why is that? Because there is some imbalance in my thought processes which alters my emotions and my actions (continuous hand-washing etc.)

(Note - try and relate to the client by giving examples of their compulsive actions)

Now draw this TEA model in your notebook.



The TEA model states that Thoughts, Emotions, and Actions are all interconnected, which is why it is depicted as a triangle. According to this model, our thoughts influence our emotions as well as our actions. For instance, if I think positively or I have joyful thoughts, then how will I feel?

Client: Happy.

Therapist: How will I behave?

Client: Nicely/joyfully.

Therapist: Now to the contrary, I am having negative thoughts then? How will I feel and behave?

Client: Sad and depressed.

Therapist: So, this proves that my thoughts directly influence my emotions and actions? But there is another approach to this model. There might have been a time when, right after you woke up, you felt sad or gloomy for no reason at all. You didn't even start your daily routine, and without any external stimuli, you felt extremely irritable. The feeling of negativity persists. Then, in this sort of situation, what kind of thoughts will you have?

Client: Negative/depressed thoughts.

Therapist: And how will you behave?

Client: Of course, negatively.

Therapist: This signifies that only *thoughts* are not connected with emotions and action but *emotions* also influence thought and action. Now, what about action? Does it influence thought and emotion? Let's see. Imagine I helped someone or made an individual feel good, how will that make me feel? And what kind of thoughts will I have?

Client: Happy.

Therapist: To the contrary, if I abused someone or behaved in a poor manner, how will it make me feel? And what thoughts will I ponder over in my mind?

Client: Negative thoughts and feelings of guilt.

Therapist: Hence, this confirms that all these three aspects of the psychological domain, which we usually call मन in Hindi; persuade each other to a great extent. They are directly related to one another.

So, if I try and change at least one of these three components, then my equilibrium will be balanced, Isn't it? Because now we have understood that in this TEA model, one thing influences the rest. Therefore, can I say that if I train myself to manage one of these aspects, then the rest of the two components will get improved on their own? This will in turn stabilize my psychological domain. Now comes the part where we have understood the theoretical

aspect that if we rectify one of the three components of TEA model, the rest will be balanced on its own.

The question now arises is *how*? How to manage these components? For this, we are working in a system and I will be imparting my knowledge to you during this structured process of therapy. Your trust will automatically strengthen. This therapy focuses on your thought processes. It will make you understand the perceptions and will make your concepts very clear and then some basic homework tasks will work on your behavioral level as well. Both these things will simultaneously work to treat your disorder. And if you want to get out of this disorder, then it will be my strong suggestion to you that you regularly and with utmost concentration do as I say and never skip the homework that I provide. Because whatever homework is given isn't provided just for the sake of giving you work for home, rather it has its own value and importance which is important for your treatment and is not to be taken lightly. This is the process of therapy.

So, write down today's homework – (1) Revise the content of the sessions daily, and (2) Brisk walking for at least 20 minutes daily.

This brisk walking is to be done initially for 20 minutes daily, and can gradually be increased as per your stamina. This is a walking exercise which will be very beneficial to you. Its benefits will be explained in the coming sessions.

Moreover, the revision that you have to do, is for both sessions. This task might take about 15 minutes, and as I have stated earlier as well, visualize the content during revision.

(End of the session)

Session-3
UNDERSTANDING THE LEVELS OF MIND



Therapist: Before starting with today's session let's have a quick recap.

(Ask the client to outline what has been taught till now)

Therapist: Now we will start with our third session. I will be talking about some very important things. To start with, I will tell you about an event that has happened in the past. In that event, there was a ship that was deemed to be the world's largest passenger ship when it entered service. Then an unforeseen incident took place. This ship drowned on its very first journey. A movie has also been directed on this happening. Have you ever heard about it? Are you familiar with the movie's name?

Client: Titanic?

Therapist: Yes, Titanic. Are you aware of what happened to the titanic? Why did it drown?

Client: Yes/No

Therapist: So, when this ship was constructed, it had been claimed that it is advanced from its time and it was estimated that this ship will never drown. But despite the claims, unfortunately, the ship crashed and drowned on its very first journey and took many lives with it. What actually happened was that on its journey, the ship crashed with an Iceberg. Do you know what an Iceberg is?

An iceberg is a large piece of freshwater ice that broke off from a glacier and is now floating in open water. To make you understand this concept well, I will explain it through a diagram. I am making a ship and an iceberg on the surface of the water. So, just the tip of the iceberg is visible. The rest of it is underwater.

Now, talking about the titanic; various theories have been devised for the disaster but let's not get into that. The only thing relevant here is that the ship crashed with the iceberg, causing utter damage and the death of many passengers.

(Author's Note: The example of Titanic is only used to relate to the client and make him understand the iceberg theory well, metaphorically)

In psychology, a theory was formulated that used an iceberg to explain our mind, which is called - *The Iceberg Theory of Mind*. This theory states that our mind replicates the shape of an iceberg. The topmost visible, small piece of the iceberg represents our 'Conscious Mind', followed by the 'Pre-conscious', and then the bottom-most part as the 'Unconscious'.

A conscious mind means everything that is within our awareness. For instance, right now whatever conversations we are indulging in, we are very conscious about it i.e., very alert about what we speak and do.

Now I will ask you a few general questions - What did you have for breakfast today?

Client: Cereal.

Therapist: What colour of clothes were you wearing yesterday?

Client: Black.

Therapist: When is your spouse's birthday?

Client: 15th December

Therapist: Now I enquired about these three things. One was related to 'Today's morning', the other was about 'Yesterday', and the last one was just 'general factual information'. Tell me; were any of these things in your conscious mind or were you thinking about them before I asked? So, when you responded to my questions, it felt as if you took a second to think, and during that period, went into a particular part of your brain where the information was stored and grasped the relevant information, and responded.

Iceberg theory named this the 'Subconscious or Preconscious Mind'. It states that one knows the information, but it is not in their conscious state of mind; but if required, it can be brought to the conscious level.

Iceberg theory states that a very small part of our mind constitutes the conscious mind and another very small part is the subconscious mind. But other than these two, there is another part which this theory named the 'Unconscious Mind'.

According to this theory, the mind's biggest part is the 'unconscious mind'. Now, what does this unconscious mind comprise of? Let's discuss this further because for our therapy process, it is important to understand the structure of our mind.

Okay, why don't you tell me what you did on 26th April, at 4:00 P.M., four years ago?

Client: I don't remember.

Therapist: But you were definitely doing something that day, right? If I give you a clue about your whereabouts, then will you be able to tell? Okay, so, hypothetically, if I tell you that on that particular day, your uncle was visiting from America and you went to receive him at the airport. Immediately a bell would ring in your mind and you'll be able to recall that day and even give more information about it like, the place you had lunch or anything about your journey etc. This means it is clear that no matter how much you gave it a thought, you wouldn't have been able to comprehend where you were until a strong clue was provided. This shows that the information was there in your mind but in which part? – The UNCONSCIOUS

Now see, in the time since you came to your senses, you had several reminiscences, moments etc. But do you remember all of those?

Client: No.

Therapist: Then where are all those memories?

(Pause)

They are stored in our unconscious mind. The theory states that all of our forgotten memories are saved in this huge part of the mind and it is even said that our personality or nature is because of this unconscious part. When we are kids, the way we are brought up, our moral values, family environment, our school, friends, relatives, and neighbors; all in all our surroundings make us who we are today. Because obviously we are not born this way; rather these aforementioned things make up our personality.

Now no two people will have exactly similar personalities because to build up a personality many things contribute and nobody gets the exact same circumstances, not even twins. That is why each person has their own variant personality. Therefore, who gets the credit to form our personality?

(Pause)

The Unconscious Mind.

The reason for giving the credit to the unconscious mind is because an individual has no clue why and how a particular personality trait was formed, which moment or memory created our habits or the way we are; and our unconscious mind is responsible for this.

So, what we have understood till now about the unconscious mind is that our forgotten memories are stored here and it forms our personality. Now there are two more things related to this - (1) Suppressed Memories, and (2) Repressed Memories.

It is said that every time we breathe, many germs, bacteria, etc. enter our body but we still do not get ill or catch a disease every time we breathe. How is that? It is so because nature has devised a natural mechanism called the immune system or the defence system (the white blood cells that fight these germs and bacteria). Whenever any kind of contamination enters our body then these cells fight the particular contamination and protect our body against any possible contamination. You must have noticed that at times when you feel a little feverish or have a mild cold, you get better on your own after a while without the necessity of any medications. It is because, the mechanism of your body is built this way, which fights against these trivial diseases on its own, without the need for any external support. On the contrary, if a strong disease or germ enters our body, and our defence mechanism is not able to fight that strong germ, at that time we require medicines to feel well.

Similarly, there is a defence mechanism in our mind as well which is activated when we go through a very painful situation, which becomes unbearable. During that phase, our body activates the mind's defence mechanism which eradicates that excruciating memory from our mind. This defence mechanism is known as "Repression".

Repression is a kind of defence mechanism installed naturally inside our minds. Let me explain it with the help of an example which is mostly used as a reference when we studied child psychology. Try to imagine a 7-8-year-old kid who goes to attend a party with his mother; they reach their location where all the relatives are sitting, and some children are playing, so the kid joins the children and starts to play amongst them. After some time, the child either does something mischievous or indulges in some fight with the other children so the mother does what? She holds the child by his ear and takes him along then slaps him.

(Pause)

If you can relate to this situation, you might be able to comprehend how children of such age react in this type of situation. They make their face down, their eyes would get wet with tears, and they would start looking towards their left and right and feel embarrassed about being slapped. If I try to analyse the psychology of that little kid, the situation was pretty painful for him. He looks around himself and that he got slapped in front of all the children and other relatives and feels awful about himself. Hence, starts feeling weird about what happened and he feels scared to face the other kids and plays with them since his parents have insulted him already. Hence such things run through his mind while he cries.

Merely 10 mins pass as you watch the clock; the same child is found playing with the same group of children at the same place doing similar mischief, without being perturbed by any memory of how he had been slapped previously. Happens right?

This is the most common thing to occur whenever we observe. So, nature automatically removes painful experiences from our conscious awareness which would otherwise tend to be harmful to us, if kept prolonged. This process is known as *repression*.

We don't even remember how many times our mother must have grabbed our ear and slapped us, causing us embarrassment in front of so many people, but we are still growing up without any memory of it, even though it did hurt whenever it happened before. To understand it better, at times some very sad things can happen to younger children, such as physical or sexual abuse but as they grow older, they tend to forget that traumatic experience naturally. You might be surprised to learn that when such children grow up, they tend to perceive those faded memories of that traumatic experience as a fantasy, a movie scene, or a dream sequence. They are unable to relate to the incident, which must have happened to them in real life. As a result, this is a system designed by nature, because if those traumatic experiences are not erased from their memory, they may develop psychological disorders. So, nature has made some amazing systems inside of us, like repression, which automatically gets rid of painful or traumatic memories without us being aware of it.

Another thing is 'suppression' which means 'to subdue'. Repression is an automatic process whereas; Suppression is done by us consciously. How? Let's understand with the help of some examples.

Suppose I went to the billing counter of my hospital, nobody was sitting over the chair but the counter was open and there were bundles of Rs. 2000 notes, lying in the drawer; and I realised that nobody was around. On seeing that what thought occurred to me first?

“Pick it”!

It's pretty natural that a negative tendency could come up that nobody is watching so let's pick the money. But that very moment another thought occurs 'are you insane?', 'Has your mind gone crazy?', 'You are a consultant here, just because nobody is watching, would you grab all the money? You have a certain position here, are these your values?'. As a result, I scolded myself and avoided the act. So, what did I do here? I consciously suppressed the thought inside my head within a second because it was illogical and contradicted my ideology and values.

Thus all these thoughts and experiences which are either snubbed consciously or without our own awareness get stored in the unconscious mind. Unconscious consists of everything; every experience no matter we have the memory of it or not or if we have erased it from our awareness or it got removed itself. Therefore, not only yours but our entire mind is filled with what? - Unwanted negative things. But don't worry, even our biological domain of existence i.e., our own human body is filled with plenty of disgusting stuff itself. What does our body consist of? Faeces, urine, blood, saliva and other stuff that would usually be considered disgusting in nature are all accumulated inside our bodies. But the system designed by the nature is so beautiful that all these elements when preserved with care make our body function healthily. So, it's not like as if my brain is full of garbage or my body is full of disgusting stuff, rather these are just systems designed by the nature the way they are supposed to be.

Sometimes, we have a very weird dream; this dream makes no sense at all, for instance, one is flying in the air, surrounded by snakes, stuck somewhere etc. What happens is that when we fall asleep, our conscious and subconscious mind also gets inactive. But at that time only our unconscious mind functions. Throughout the day, we continuously see or hear uncountable things that we don't even remember. These things are stored in our unconscious mind, without us being aware of them. Moreover, we dream from our unconscious mind. Our dreams amaze us at times when we dream about impossible happenings or something strange that we can never imagine. Well, because our unconscious mind stores those things that we usually do not pay attention to; these things take the form of our dreams. Hence it is important to understand that our unconscious mind comprises a huge part of our brain and stores uncountable memories of our life that we can't even imagine. These stored memories of our surroundings create our personality. Our brain is so complicated that one of these memories from the unconscious mind can either contribute positively to making you the way you are or can cause a psychological disorder without any apparent cause.

We have no clue which thought or action caused the problem that you are facing right now and honestly, we shouldn't even bother to find a cause. It is so because our brain is like a computer. Whenever a virus enters the software, we get the virus fixed with the help of an anti-virus, rather than looking for the file that corrupted it. Similarly, we need to focus on the treatment of our disorder, in your case OCD and not its cause.

Let's discuss it further, suppose my hand got a little bruised, can I apply a medicinal ointment and dress the wound myself?

Client: Yes.

Therapist: Okay, what if a splinter enters my hand, can I perform a minor operation using tools such as a tweezer or plucker?

Client: Yes.

Therapist: Now let's imagine I have a kidney stone. Can I remove the stone myself from my kidney?

Client: No.

Therapist: Then? What do I need to do?

Client: You need to consult a doctor.

Therapist: Exactly! I need to visit an expert who can treat me.

Client: Yes.

Therapist: Now let me make you understand how this example is related here.

Envision that you and I get into an argument or a fight. Can we discuss the issue and clear things out? So, it means that if there is an argument or fight on the surface level (related here to the conscious level) then it can be sorted out by talking or apologizing. Just like a minor bruise can be healed by self. Similarly, if the fight or problem cannot be solved by self and the damage is done on a bit deeper level (say, to the level of sub-conscious) then can we use a mediator or a third party (as in the previous example, tools used in the minor operation) to help sort things out? But what if the damage is done on the deepest level (e.g., in the case of OCD, to the unconscious level) where neither the self nor a mediator has any access; then what? In this kind of situation, one needs to take the help of an expert in this field and that is why you are consulting me.

So, as an expert, my work is to use my knowledge and training to reach your unconscious mind and most importantly transfer my knowledge to you so that you can become self-reliant and get back to being normal.

But if we perceive it systematically; when one necessitates getting his kidney stone removed, the first thing they do is consult an expert. If the surgeon recommends an ultrasound; what is the response of the patient?

Client: Okay Doctor.

Therapist: Then when the reports arrive and the surgeon studies the reports and advice to get admitted the next day to start the procedure; how will the patient respond to the doctor?

Client: Okay Doctor.

Therapist: Then the next day the patient does as is asked and reaches the hospital in the morning. The doctor asks him to get a few blood tests done, wait for the report and start the admission process till the reports are ready. What does the patient say?

Client: Okay.

Therapist: The reports arrive and so does the doctor. After examining him and the reports, the surgeon tells him that the operation will be scheduled for the next morning. What does the patient reply?

Client: Okay Doctor.

Therapist: So, as scheduled the nurse arrives and takes the patient to the Operation Theatre where the doctor explains a bit of the procedure and asks the patient to relax and injects anaesthesia to start the process. The patient replies -

Client: Okay.

Therapist: Then the operation is conducted and when the anaesthesia wears off and the patient wakes up, he has no memory of the operation. This is the methodical procedure, right?

Similarly, when you are consulting me as your therapist, I need you to comply and when I give you work for home or exercises; what should your response be?

Client: Okay! (*Often, with a smile!*)

Therapist: You do not have a scope to not comply because a doctor knows all about the issues and the treatment process. Just like a patient cannot argue with the doctor during the operation process to not give him anaesthesia or to not conduct certain tests. Likewise, there is no possibility of not acting in accordance with your therapist.

Moreover, if the doctor admits a day before scheduling the operation, will there be any use in you showing eagerness to get the procedure done prior to the scheduled date due to inconvenience caused by the illness?

Client: No.

Therapist: Exactly! The doctor empathises with your current situation but everything needs to move swiftly in accordance with the procedure and not the way you want it to because everything has its own requirement for the commencement of a successful operation.

Therefore, as we are moving into a system, all the tasks are set for a reason to facilitate your betterment.

One last thing that I will explain to you in this session is - *Difference between Brain and Mind*

What is the brain and what is the mind? Are these same? Let me explain it to you

There are some very common sayings that *one must think from the brain and not the heart* or *I adore you from the bottom of my heart* and many such proverbs. But first of all, you need to understand one thing. The heart has no role in thinking. Scientists have proven that the role of the heart is to act like a motor and circulate blood all over the body. It has no mechanism that instils emotions or feelings in us. Science has developed so much that if we bisect a human brain, as of today we can identify each and every aspect of the brain along with its function. As a matter of fact, our whole body is controlled by our brain only. Are you aware that when we move our limbs, evidently our hands or legs move but it is our brain that gives our body those orders to move? Have you ever noticed that if someone incurs a brain injury or has a brain haemorrhage, their limbs stop functioning?

Client: Yes.

Therapist: But why is that? The injury was on the head, then why have the limbs stopped functioning? If such an incident happens, it means that the individual got injured in that part of the brain which was responsible to control the movement of the limbs. Similarly, if someone loses his vocals due to a head injury, the reason can be contributed to the fact that the damage was on that particular region which controlled the speech. Furthermore, you must have seen in some movies, or in real-life examples, that after a head injury, the person suffered from memory

loss. It means that the damaged area was ‘the hippocampus’, as it is responsible to store memory in our brain. Hence, each and every function of our body is controlled by our powerful brain. Everyone is acquainted with the fact that we think from our brain but as you might have comprehended by now that even our emotions or feelings are processed from a particular part of our brain; which is called the ‘amygdala’. The heart or any other organ is not responsible for it.

So, it is clear that Brain is called “Dimag (निमाग)” in Hindi. Now, what is Mind?

The mind is an entity without which our brain cannot function. All our thoughts are mainly derived from the mind. Therefore, the mind comprises our “thoughts (सोच)”

To make it clear further, if you have a basic knowledge of computers, you would know that ‘Windows’ are a part of the computer which enables it to work. Now, if I ask you to open the computer, remove the Windows from it and place it on my hand or table; is it possible?

Client: No.

Therapist: Right. Because ‘Windows’ is a type of program installed in our computer, which cannot be removed from it. It is not a physical entity. Similarly, our mobile phone comprises WhatsApp, Facebook and many other apps and systems such as Android/iOS etc.; even if we want to, we cannot physically see these apps/systems by taking them out of the device. Also, if we talk according to religious sayings, our body comprises a soul which facilitates the body’s functioning. Is it possible to emerge the soul out of the body and make it visible?

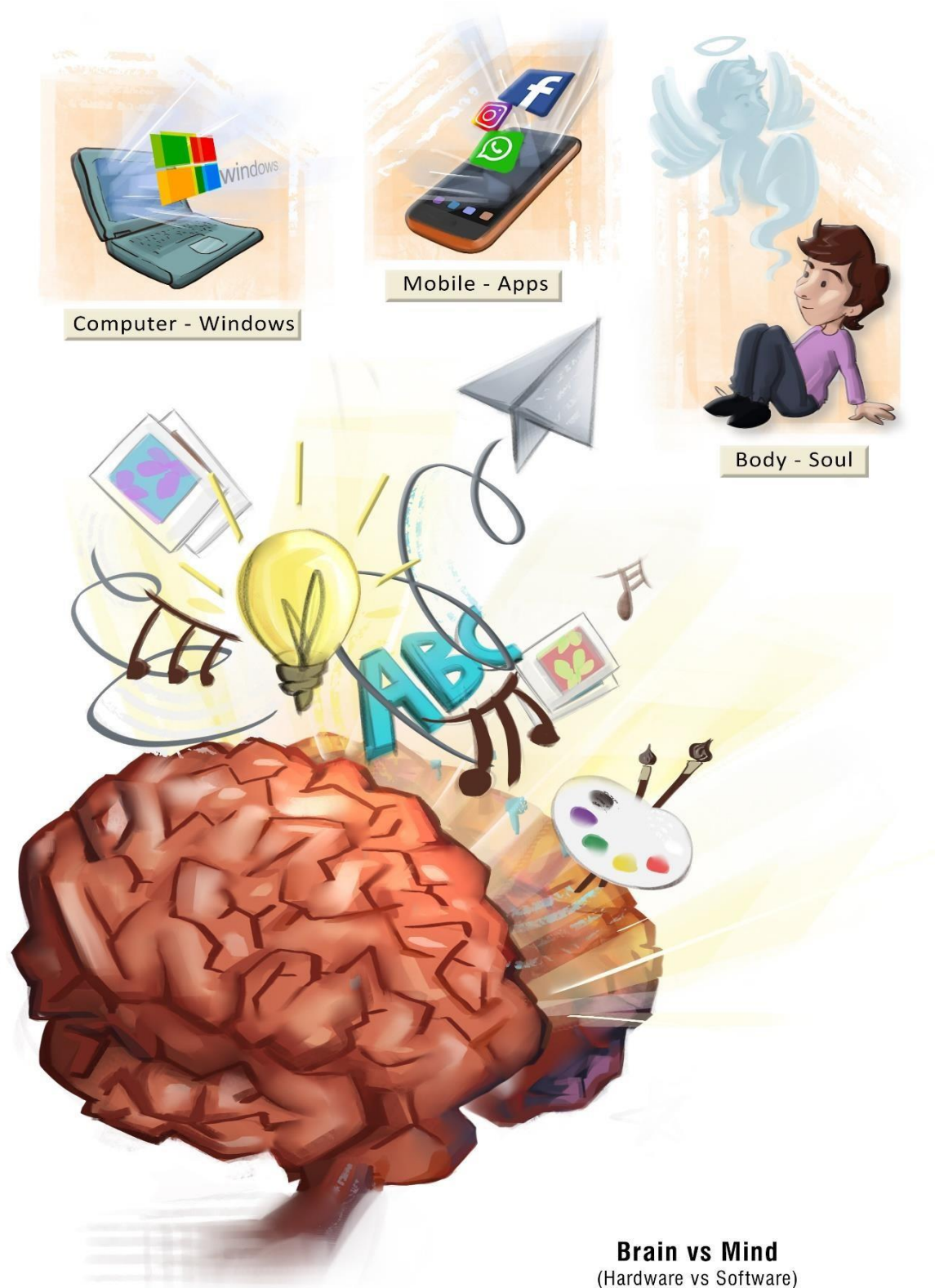
Client: No.

Therapist: What is happening? A computer has Windows, but it cannot be extracted; gadgets have apps but they cannot be taken out; the body has a soul but it cannot come to light. Similarly, our brain has a mind which helps it operate, but it cannot be taken out of the brain into sight.

Now understand this thing - Computer is hardware and Windows is its software, Mobile-phone is hardware and the Android/IOS system is the software, the Body is hardware and Soul is its software, likewise, the Brain is the hardware and the Mind is its software.

Your disorder is in your mind i.e., Software. That is why you are being treated by a psychologist, who is an expert on the Mind. Similarly, the doctor (usually, a psychiatrist) that gives you the medicine for this disorder is a specialist in the Brain. The question now arises is that if your disorder is in your mind, then what is the use of medications for the brain?

Do you know if a virus corrupts the windows of the computer, again and again, it eventually starts affecting the computer’s hard disk as well? Similarly, our distorted thoughts have created havoc in the brain, causing an imbalance of some chemicals.



Brain vs Mind
(Hardware vs Software)

I hope that with each session, you become more knowledgeable. Continue revising these sessions along with some physical exercise, such as walking, yoga, or any aerobic workout, as previously explained, to release the necessary hormones in order to feel better soon.

(End of the session)

Session-4

UNDERSTANDING THE PROCESS OF HABITUATION

(Note – Before the commencement of this session, the therapist should set up a clock in the room with a prominent clock ticking sound)

Therapist: Let us begin with a very quick revision of everything that has been completed so far.

(Ask the client to skim through the content of the sessions taught till now; ensure that the revision is being done properly and thoroughly in order to achieve quick and lasting results)

As the sessions continue, we move towards the practical side more and the theoretical aspect will diminish gradually. So, in today's session, I want you to speak a few lines on 'Camel'. A very childish essay will work just fine. I just need you to speak about the characteristics of a camel, where is it found, its usage, in fact, anything and everything you are familiar with, I want you to articulate.

Client: Camel is an animal with four legs. It is brown in colour; found in deserts, helps in transportation, and has a long neck and a hump. It can live without water for many days. Their large foot helps them to walk in sand without sinking in it.

Therapist: Great! So have you ever seen a decorated Camel? Like the one, we see in movies or fetes where the camel is decorated with various ornaments such as mirrored sheets, tassels, garlands, etc.

(If the client is not familiar with a decorated camel or is not able to visualize it, then show a picture from the internet)

I will tell you the significance of all this later but right now I want you to completely comply and trust me blindly as I know what needs to be done.

Moving forward now; this is a one-minute challenge game or rather an exercise. I want you to sit straight and keep your hands on the table.

Now I want you to sit straight and close your eyes and think about a camel for one minute. You don't need to worry about the timings; I will specify when to stop. During this process, if you feel that your mind is deviating from the camel and you start envisaging something else then I want you to notify me that, by not opening your eyes or speaking, but by gesturing it from your finger by lifting it once and then you should continue to think about camel again. If you again think about something else other than camel then you should gesture or signal me every time. In this exercise, if your mind does not drift away from the camel then no need to gesture, just continue with your visualisation. Clear?

So, let's begin. START.

(The therapist should set a timer for one minute and notice the number of times the client gets distracted by some other thoughts. If the client seems too distracted and is unable to imagine then show them a few pictures of a camel in order to visualize better and increase suggestibility)

Stop after one minute.

Therapist: So, what was going on in your head?

(Listen to the client and if you feel that the client could visualise well then, we will move on to the next exercise; if the client or therapist does not feel satisfied then repeat the exercise again)

Now another easy exercise task for you; the rules are the same as before but with a slight variation, this time it's the opposite; whenever the image of a camel enters your mind, you should gesture with your finger as in this activity you can think of anything you want but a camel. Understood?

Let's begin then.

(Set the timer for one minute again and notice the number of times the client gets distracted and signals)

Stop after one minute

Therapist: So, again explain what went through your mind.

Okay, so we just completed two one-minute exercises and now let's perform another 20 or 30-second task.

In this simple activity, I want you to listen to my instructions after you sit in the same position with your spine straight and eyes closed. After you close your eyes, I will provide you with the instructions. Let's begin.

Right now, I want you to concentrate on what I am saying. Once I stop speaking, I want you to concentrate on the sound of the clock that has been kept in this room. I want you to focus your mind on the tick-tick of the clock for at least 30 seconds. I will let you know when to stop.

(Set the timer for 30 seconds and make sure that the sound of the clock is audible and there is pin-drop silence in the room. Stop after 30 seconds)

Stop! Were you able to hear the clock's sound?

Client: Yes.

Therapist: The sound of the clock was quite loud, wasn't it?

Client: Yes.

Therapist: Tell me one thing; this clock has been in this room since you got here but was the sound this loud and continuous before this 30-second task?

Client: Surprisingly not.

Therapist: How is that? I don't have any control over the sound of the clock; you were sitting in the same position as before; nothing had changed then why the sound is so loud now?

Client: Maybe because we started paying attention to the sound.

Therapist: Okay! Let me explain. We talked about three things – (1) Imagining a Camel (2) Imagining anything but a Camel (3) the Tick-Tick of a clock

Activity One :
Think only about a camel.



Activity Two :
Think anything except a camel.



सोच को सोचना भी नहीं है



सोच को रोकना भी नहीं है
(तो क्या करना है?)



Ignore करना है?
(कैसे?)



Importance ना दे कर
(उससे क्या होगा?)



Habituation
(फिर उससे क्या होगा?)



सोच होगी पर
परेशान नहीं करेगी

Camel Effect

The camel effect is a metaphorical example; see, in the first activity when you had to think about a camel you did get distracted a few times but even so, you were quite comfortable imagining the camel. In a way, you were flowing in that particular thought and it was easier for you to visualise it. This means that when you are thinking about a thought, you indulge yourself in it and hence flow into that particular notion. In the second task, I particularly asked you to not think about a Camel. Actually, what we were doing here is we were trying to stop the thought from entering our minds. In that one-minute game, what were my instructions to you? Not to think about?

Client: Camel.

Therapist: What not to think?

Client: Camel.

Therapist: Yes! But the irony is that in that one minute, the camel never left your thought for once. Do you know why? Because at the back of your mind, you were only concentrating on one thing that is - *not to think about a 'Camel'; think anything but a 'Camel'*. Hence, ironically that camel was moving at the back of your mind without you even realising it. You tried so hard to distract yourself from the thought of a camel, but truth be told, all you had in your mind despite the other imaginations was that camel indeed. The camel never left.

Now keep your arm straight and keep it that way with me until I put my arm down. So now imagine I am trying to stop something with this hand, in another way, I am trying to stop the thought of the camel entering my mind and thinking about something else in order to distract myself. Actually, what was happening in my brain was that as I used more and more of my energy stopping that thought, the more struggle I had to incur. Therefore, the increased effort was leading to an added struggle. We have kept our arms in this position for a few minutes now and I am sure it is really uncomfortable and painful as well. What is happening? This pain replicates the struggle we feel in our minds when we hold a particular thought for too long. Now you put your arm down; this is one of the most relaxed feeling in the world. Isn't it?

It is a tendency mostly seen in OCD cases that when we think about a particular thought, we coddle ourselves in that idea so much without realising it; it means that if we show our compliance with those thoughts, they multiply. On the contrary, when we try to hold or stop our thoughts, they increase our pain and struggle and cause a lot of discomforts.

Hence, it is quite clear through the example of the 'camel effect' that if we indulge in our thoughts, they multiply, but if we hold our thoughts they still increase and cause pain too.

Now the question arises - What to do then? How to get over these OCD thoughts without feeling anxious?

Note this down in your notebook -

Soch ko sochna bhi nahi hai, Soch ko rokna bhi nahi hai
Toh kya karna hai?

Ignore karna hai
Kaise?

Importance na de kar

Usse kya hoga?

Habituation

Fir usse kya hoga?

Soch hogi par pareshaan nahi karegi.

(Not to obsess over a thought. Not to hold off a thought. Then what to do? Ignore the thought. How? By not giving any importance to it. Then what will happen? Habituation. Then what? Thoughts will start flowing naturally and their presence won't cause any distress to me.)

Now here is a quotation that fits in perfectly, "Better said than done" I am sure this is exactly what you have been thinking as well because these steps would have been easily followed if the thoughts did not provoke anxiety to such a great extent. But that is why I am here; this is my domain and my responsibility to make you follow this by proving to you that this is possible.

In the next two sessions, I will equip you with the knowledge and will fully convince you that this is the treatment for your disorder. You will be able to link all the things I taught before with the forthcoming two sessions.

Now I am going to try and validate this thing by giving you a few examples so that you are able to understand and relate to it.

Scene-1

Once there was a young meritorious boy of around 27 or 28 years of age who aspired to do a government job but unfortunately, he wasn't able to get a suitable job as per his desire. Thereby some corporation job opportunities occurred and he gave the exam for it, which he managed to clear along with the interview as well. The boy had been trying to clear the same interview for a long time without any success due to which he had to work part-time and could barely manage to earn somewhat 7 to 8 thousand rupees only. Since the boy belonged to a very poor background, it was his utmost desire to get a government job. Then finally he managed to clear the exam for the government job he had desired and even got the job as a supervisor with a handsome salary of Rs. 32000 per month along with benefits such as job permanence, incentives etc. Hence, he became so glad for his dream had finally come true.

You must have an idea about how the corporation jobs are, so the day he went to join his job, he got to discover that he was placed as a supervisor at the city's biggest dumping zone to look after the efficient functioning of the cleaning staff appointed there. Now just imagine whenever we are travelling in our car and by chance, some garbage truck happens to pass by us, such a pungent smell occurs that we have to pull up the car windows, either we try to cross it somehow or slow down the car and wait for it to go away since the smell becomes unbearable. Now just imagine that this dumping zone, where the boy was appointed, was the biggest in the city where all these trucks used to vacate on daily basis. Now you can better imagine what could have happened next. As soon as the boy reached the location, it became difficult for him within hardly two minutes. He felt nauseated as to how could anyone sustain himself in such a dirty and disgusting-smelling environment. Hence within five minutes, he decided to quit the job as he thought that the entire

environment would literally drive him crazy. He decided to go to the head office and give his resignation immediately.

While he was travelling on his way to the head office, he kept on thinking that he wasn't able to manage a decent job till his 28 years of age and then he somehow succeeded to get this one. He asked himself how he used to make hardly an amount of 7-8000 only while here it was 32000 per month. Not only a handsome salary but other aspects such as future security, perks etc.; everything mattered a lot to him. Hence before reaching the head office, he was able to figure out that he cannot afford to lose this job. Therefore, he changed his decision right there and then, gave his job more importance, and returned back to his work location.

Now the area had that same pungent smell all over, and he somehow tolerated it. He reached there again the next day and the smell was still consistent therefore he had to continue tolerating it likewise for another 3rd, 5th, 10th, 20th, and 25th day in continuity. So, did the smell stop coming from there?

Client: No, it was still there.

Therapist: Wasn't he able to sense it anymore?

Client: He was/He wasn't.

Therapist: He wasn't. Why was it like that; there had been a process occurring inside his brain known as 'habituation' that made him not able to sense smell anymore. And this is not required to be justified to you as you may go and see for yourself, people working over there; Isn't it? And the same people can even be found whenever, having their lunch in the afternoon, standing at a side over the same location.

Does the smell vanish somewhere? It is very much there. Don't these people sense it? They don't. Why not? It is because these people get habituated to it.

Scene-2

The biggest sewage around your area is cleaned once every 6 to 12 months. You must be aware of the fact that all the waste and discharge from our houses get drained through the sewage system. Hence you may well imagine how dirty it would be and how bad would it smell. You may observe during its cleanliness process, a man comes by his cycle, removes his shirt, and gets down in the sewage drain by holding a rope, obviously getting himself smeared with filth everywhere. Won't he feel disgusted by it? Won't it be any difficult for him? It is not. You need to understand this, why, because of habituation. Habit stands for a routine of behaviour that is repeated regularly unconsciously, and habituation stands for the formation of such a concept inside our brain, that despite the presence of the filth and smell you gradually get desensitized towards it.

Scene-3

This is a live example for you from my personal experience. I used to work for XYZ hospital, about 8-10 years ago. We had a medical camp at a huge area under a big Cement Factory, hence their organisers requested us to reach a night prior to the event since it was a three-hour journey to their location and the camp had to be started early by the next morning. They assured us about our stay arrangements for our convenience. We were about a team of around 12-13 members and we left the hospital after finishing our evening OPD around 5:30 and reached their location by 8:30. You won't believe the moment we entered their gate, they have built a really good

infrastructure similar to a mini city with a well-maintained society inclusive of parks, residential area, health club, a primary school, multi-storey flats and many more. It was a huge area where all the employees along with the officers lived in the society with the factory situated there within the campus. We were pretty glad to visit an astonishing place like that. Then they took us inside their guest house which was no less than a hotel, where they had arranged a buffet dinner for us. We had dinner and then we were provided with our individual rooms for the stay. They requested us to be ready by 8 in the morning for their subordinate would come, host us with breakfast, and then take us to the nearby location of the camp. Later, we had a good time together and then left for our rooms to rest. Around 11-11:30 at night about 10 to 15 minutes must have passed since we all went to sleep, suddenly everyone started to come out one by one in the lobby area and appeared agitated.

Actually, there was a cement crusher behind the residential area which operated for 24 hours and it made noises like "*push push push push ...hmmmmmmmm thapppp*" continuously. That rhythmic sound was so disturbing that it seemed to knock in our heads. Just think about it in the extreme silence of the night you are able to only hear a such type of rhythmic noise recurrently; would you be able to sleep?

That's how all of us came out of our rooms and almost everybody seemed bothered by the noise since it was really loud and was thus unbearable. Hence to distract ourselves, we started to chill with each other by playing 'antakshri' as we didn't have any other option. So, we started to have fun by making groups and imitating the crusher noise and then laughing at the sound of it, to lighten our mood. Around 1 AM we thought about the camp we had to start the next morning; also, we were tired already so we somehow managed to sleep through the night. The next morning, as per the schedule, by 8 AM, their subordinate came and very courteously asked for feedback from us about their hosting. We said that everything was wonderful we just want to know how you people manage to sleep at night here. He asked unexpectedly why, what happened. We shared about the noise at night to which he was like 'what noise?'

So, was there no noise at all?

Client: There was...!

Therapist: Weren't they able to hear it?

Client: ???

Therapist: No!!! That sound was no more disturbing to them. Just because of the process of Habituation!

Scene-4

Now you may be able to relate to it yourself. You might have seen some houses constructed around the railway tracks, these days not only slum areas but even posh colonies are being built around it. Just think about it, during night hours whenever some train must pass through those tracks, how much vibration, and noise would it cause; Right?

Client: Yes.

Therapist: So, would that not disturb the people living in those posh localities? It doesn't; because of habituation.

I once visited my uncle's place for a function, when everyone was sleeping at night; I suddenly got scared by a noise and woke up. I tried to ask about what must have happened, to my uncle who was sleeping beside me, responded “nothing. you go back to sleep; it was just a train passing by”. I realised that nobody actually woke up except me and their house was really close to the train track. Hence, I try to relate to that experience today.

Just tell me there is a pungent smell but it's not stinking; the sewage is filthy but it's not making the person feel disgusted; even the train's turbulent vibrations are not affecting anyone. There must be some process or logic behind all this desensitisation. It is known as *habituation*!

In fact, each one of these people I told you about in these examples must have had a hard time but only during the initial phases. What they did was –

Soch ko socha bhi nahi...Soch ko rokka bhi nahi...Fir kya kia?...Ignore...Kaise?...Importance na deke...Usse kya hua?...Habituation...Fir usse kya hua?...Thought, Dirt, Noise, Smell the par unhe pareshaan nahi kiya.

Right now, I've explained it to you philosophically, but in the next session, I'll explain it through some short videos, and in the final session of this process, I'll make sure you understand the habituation process that occurs in our brain and the concept of *Knowledge is Confidence* completely. Because if you understand what this disorder is, you will not be afraid. You are currently finding it difficult because you are unaware of what is happening inside. because these thoughts are so disturbing that it is difficult for you to concentrate on any task. However, it is not your fault because this is a bit time-taking process. Your current duty here is to revise the content on a daily basis and with the utmost sincerity, and I can assure you that if you follow my instructions, you will get better soon.

(End of the session)

Session-5

UNDERSTANDING THE PROCESS OF IGNORING THE THOUGHTS

(Note - Before the commencement of the session, the therapist is advised to install any type of screen in the room as in this session the client will be shown a few videos for a better understanding of the concepts. Moreover, the provided links of the videos must be made available by the therapist before the session)

Start with the thorough revision of the previous sessions.

Therapist: In today's session, we shall begin with three very short advertisement clips that I downloaded from the internet. These are half-minute each video, which will take approximately two minutes in total. In these two minutes, you are supposed to look at these three videos very carefully and then answer my two very basic questions -

Question 1 – What is the gist of these three advertisements?

Question 2 – How is the third advertisement different from the 1st two?

(Note - The therapist is advised to play the videos one by one, without giving a lengthy pause. Furthermore, the videos are to be played chronologically only)

Video 1 - <https://www.youtube.com/watch?v=Odr7vPWZJgU>

Video 2 - <https://www.youtube.com/watch?v=vIPL-jjSOKE>

Video 3 - https://www.youtube.com/watch?v=6U79DYy_YJM

Therapist: So, now that I've shown you these three videos, you already know what answers you need to give me. But first, I'd like you to watch these videos again. The reason for this is quite simple; when we first watch something, we look at it with more curiosity and less understanding, but after watching it again, the curiosity settles in and one understands the things that were missed the first time. Hence, I am going to play these advertisements again.

(Play again)

Now answer the two questions I had asked before.

Client: XYZ

Therapist: Let me elaborate. In these videos, it is shown that an individual is working according to his moral values and commitments but he has a particular thought that is asking him to do something against his morals. But that individual is *ignoring* the thoughts and not letting them get in his way. How is he ignoring the troubling thoughts? *By not paying any importance to his thoughts*; What happened then?

He did not give any importance to the voices that were on his head in the first two clips, because of which in the 3rd clip that voice was still present but it was not disturbing him like before as he habituated himself to ignoring thoughts that once caused extreme distress. On the contrary, the moment he gave the slightest importance to his thought, it tormented him again. But he ensured not to comply with his thought and ignored it again, making the thought vanish again.

The things that were theoretically taught in the previous session are currently practically and visually shown in this session. In every human being, there exist two types of voices- the Angel's Voice and the Devil's Voice

Whenever we commit something wrong, as an act, a voice appears from within us, indicating that it is unethical. This is known as the 'angel's voice'. But despite that, taking a rational decision whether to do it or not would depend on whom?

Client: Me.

Therapist: Even if you try to commit that same act five more times, the voice would indicate its unethicity for those five times, right away. But the choice would always remain in your hands whether to comply with it or not. Similarly, a contrary voice also comes up in our head, which directs us towards the wrongdoing itself, this is the 'devil's voice'. Yet again to abide by it or not would be in our hands only. Now in the last session, I mentioned an example in which there was an opened cash counter filled with a bundle of notes, on seeing which a voice appeared in my head 'Pick it' and despite which I didn't do it. This is because I don't belong to my thoughts but my thoughts do belong to me. *I am the master of my mind; the mind is not my master.* My thoughts belong to me therefore I am the master of my mind. These thoughts are just like voices in our heads, they don't have the physical limbs that can forcefully make us do things. These voices can only speak. For example - during the winter season, you are fast asleep early in the morning, around say 4 or 4:30 am. You are very cosy and comfortable in your bed, but you have to wake up for an urgent piece of work. But when you try to get out of your warm and cosy blanket, you tend to hear a voice, which goes like 'not yet' or if u try to struggle that you have to go, it says '5 minutes more', as you keep on struggling, it continues like 'nothing would happen, the entire world doesn't revolve around you, nothing would go wrong even if you sleep for 10 minutes more'. Hence similar voices keep going in your head. Now suppose you really have to go for say an exam or you have a flight or train to catch, where you have to reach on time, no matter, what would you do?

Client: I will get up somehow/XYZ

Therapist: You remove the blanket right away and get out of bed, no matter how many voices keep running through your head. Hence this states that the thoughts are nothing but just the voices in our heads. Though these 'voices' could be pretty convincing, whether to listen to them or not is always going to be your choice. Always remember you don't do a thing because your thoughts have asked you to, because you are in total control of yourself. As per '*Knowledge is Confidence*', once you would be aware of the disturbing thoughts that occur as random voices in your head, you would start ignoring them by not giving those thoughts any importance and eventually what would happen? You will get habituated.

Till now it was happening that the recurrent OCD thoughts were pretty disturbing and not knowing how to deal with those caused a lot of overthinking, eventually leading to anxiety. You were either getting swayed by those thoughts, due to overthinking or getting stuck by deliberately trying to avoid those; eventually leading to an increased struggle with the thoughts. What is needed to be done here?

(Note – Keep interacting with the client in a dyadic manner)

Client: XYZ

Therapist: Now the problem that occurs here is how to ignore. Today while watching these videos, you must have observed the person being disturbed by those voices, but did he try to struggle or reason with it at any point? He was not. He was not trying to retaliate or respond to those voices; instead, he continued doing his work without either getting stuck or overthinking about his voices. It wasn't easy for him to ignore it but he continued to do so since he was aware that the more he would ignore the voices, the more they would recede backwards. The recession of the voices could be observed as we move from the 1st, 2nd to 3rd clip, wherein in the 3rd clip, the voice was very much present there, but it wasn't bothering him as it used to before.

Suppose you have two pet dogs at home which are white and black in color; individually, you have to feed 50 gms each, of the packaged feed daily. Instead, you feed the white dog 75 gms and the black one the remaining 25 gms, daily. Hence what would happen after a few days? The white dog would become bulky and the black one would become malnutrition and vice versa.

Imagining these dogs with your 'angel's voice' and 'devil's voice' now. The voice that received the most attention would eventually surpass the other, and only that voice would be able to have the greatest impact on your nature. Therefore, it follows that the more attention we pay to the negative thoughts that constitute our 'devil's voice', the more control and influence they will have over us. Therefore, it is important to understand that we can effectively manage our current situation once we are aware that we can reduce the power of our dysfunctional thoughts by not giving them any attention.

Now the question comes what about the anxiety that occurs while ignoring such thoughts? I would definitely make you understand it but before that please write down in your notebook '*three short video clips*' so that you would be able to remember what you watched in today's session.

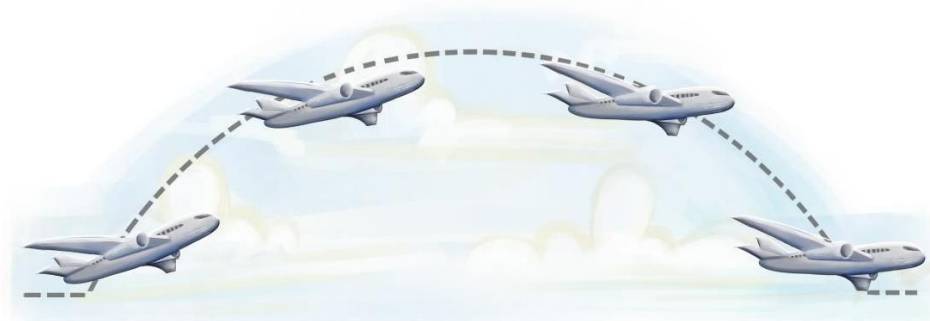
Our second topic for today is 'Anxiety Curve'. Now initially I would be drawing this for you to have a better understanding and then we can discuss it.

(Note - Demonstrate while drawing side by side as you explain; start to draw the graph from the point where $x: y=0$)

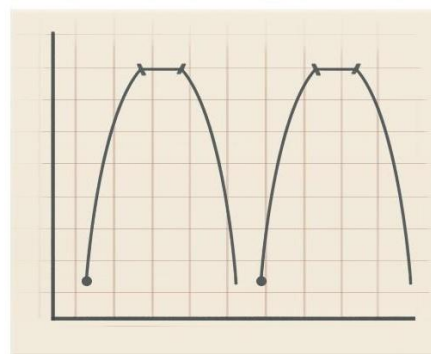
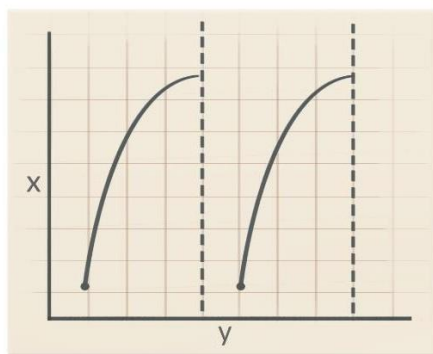
We usually draw a graph over the *x-axis* and *y-axis*. So here at the neutral point of the *x-axis*, a disturbing thought occurs and gradually it started to increase (*draw the curve reaching the highest point of the graph to demonstrate the increase in anxiety*). As it reached its peak, I did some behaviour to reduce the disturbance it caused, (*draw a dashed line, vertically through the curve to indicate the behaviour done to reduce the anxiety*).

The behaviour stands for some compulsion I get indulged in, some overthinking, some crying behaviour or some mental rituals, and my anxiety subsided temporarily. But after some time, the disturbing thoughts occurred again and yet again they lead to anxiety which kept on increasing; in order to reduce it I do some behaviour, which subsided it temporarily, one more time (*demonstrate it by drawing another curve on the graph with a similar pattern*). But what is actually happening here is that the thoughts are recurrent, leading to eventual anxiety and disturbance, thus leading to a consistent dysfunctional pattern. The actual truth about anxiety could be understood through the medium of this curve. The anxiety increases and reaches a

particular point, where eventually it has a natural drop (*draw another curve to demonstrate the truth about anxiety*). According to this curve, the thoughts can occur again and the anxiety would go through a similar pattern that naturally drops after reaching a certain level of the peak.



Both aeroplane and anxiety follows the same route. First both take off then rise to the peak and eventually has to come down.



Anxiety Curve

This states that even if I don't give importance to my anxiety it has to come down, in due course of time. Now when the anxiety is at its peak, we must tolerate it (*draw a horizontal dashed line through the topmost part of the curve to indicate the 'tolerance' zone*).

Now let's understand the process of it. Every anxious experience, no matter how escalated, with time, drops to normal. For example, when a plane takes off from the land, it reaches the highest of altitudes during its flight in the air, but it doesn't always remain there. Ultimately it has to come back to the ground. Similarly, the anxiety that builds inside us has to restore to normal as per the biological mechanism of our bodies. The anxiety cannot stay at its peak continuously; it gradually reduces after a certain period.

When it comes to tolerance, we need to let anxiety occurs, especially when it is at its peak. Let all the uncomfortable, restlessness, and overwhelming occur and simply try to ignore it by not giving any importance. Once you learn to tolerate and ignore it not just once but twice, thrice and another few more times, the habituation would start to occur, leading to a reduction in the height of the curve (*draw a few curves in descending order, finally becoming insignificantly small*).

Gradually the anxiety due to thoughts would start to decrease and with time it would become normal, as per habituation. The reason anxiety disturbs us is that we don't let it complete its natural curve, as we obstruct it by doing some behavior to reduce it immediately, which is actually making it recurrent. But if we let it complete its curve and tolerate meanwhile, the anxiety would start to lose its impact. The disturbing thoughts would still be there but they would eventually stop to bother us, unlike in previous times.

Now let's recall that example about the boy working at the dumpster. He experienced the pungent smell initially not for just 1st but 2nd, 3rd and 4th days as well. We observed that, unlike the 1st day when he was so disturbed that he decided to quit his job only, he was able to somehow manage to tolerate the smell for the coming days by focusing more on his priorities and not giving it any importance, which leads to his habituation and now he wasn't bothered by the smell at all despite it being there. Therefore, it is important to understand the necessity of 'Tolerance' in terms of dealing with anxiety.

It often happens to us that due to a lack of awareness regarding handling a particular situation, we mostly tend to lose hope, as neither we are able to manage nor do we have any idea about how to manage it. This leads to provocative behaviour which obstructs the completion of the anxiety curve, thus depriving us of the process of 'habituation'. Hence, once we have the knowledge about how this process of 'habituation', it works as a remedy for our mental functioning, we would definitely be able to manage our situation in an effective manner. Therefore, I would again remind you that *'Knowledge is Confidence'*.

OCD has this characteristic of causing irrational, intrusive thoughts inside you that you won't be able to control since the more you would try to exert any control, the more it would increase. That's why we as mental health professionals are here to take the responsibility for making an accurate diagnosis and providing you with the appropriate treatment. The medicine would help in restoring the chemical imbalance and this therapy would work on your thought process.

Now draw this anxiety curve in your notebook, as reminder notes.

Now let's talk about the *Vicious Circle of OCD*. You get an irrational thought which causes anxiety and then to combat that anxiety you do certain behaviour which leads you towards a temporary relief, but yet again, later the thoughts reoccur, indulging you towards a similar pattern, thus culminating into a vicious unending circle. Here you have been made to understand that the 'thoughts' have the tendency to occur and even cause 'anxiety' which is undoubtedly very disturbing and painful. But in order to combat those you are not necessarily required to do a 'behaviour', if manage to somehow tolerate this pain, you would ultimately experience relief in some time. This is not at all an easy practice but if one has an understanding of the accurate measures, as a solution to the problem; it becomes easier to break the vicious circle. Therefore 'tolerance' would lead to 'habituation' and the gradual depletion of disturbing thoughts.

The concept of 'pain' can be understood in two ways. One is the 'pain' occurring due to an injury, another is the 'pain' occurring for its treatment. I always ask you to 'tolerate' your anxiety, despite that being difficult, but if you are familiar that it is a part of your treatment then you won't get that distressed while bearing it. Here I am just asking you to bear the 'treatment' pain. I have a metaphor to make you understand it better.



Suppose a person gets his arm fractured, where his bones get dislocated; Now just imagine how painful would that be. It gets so unbearable for the person that he runs to the nearby hospital ‘emergency’ and asks the doctor to treat it immediately. The orthopedician reaches for his arm in order to relocate it so that he can put a plaster; as soon as he stretches it, the person starts to scream *“Leave me, please, it hurts”*, with pain. The doctor leaves it and yet again the person starts to cry that *“it hurts a lot, do something, save me”*, to which the doctor replies, *“For that, I need to stretch your arm; please cooperate; it will be done gently and quickly, as this is the first step in repairing it so that I can apply the plaster”*. When the doctor held his arm again the person started to cry in pain. The doctor then has to leave it again.

Now here try to understand one thing, the pain that the person is bearing is from his injury, but the pain that the doctor is causing him is for his treatment. The injury pain continues for a while, but the treatment pain is there for a brief time. Therefore, when I ask you to bear the inconvenience caused by anxiety, you must take it as part of your treatment process, as the ‘treatment’ pain.

The more importance you would give to your thoughts the more powerful they would become. Now you are being provided with the medication along with a structured therapeutic process, therefore you need not get worried. This is an all-round support for your condition just like a painkiller or anaesthesia so that the treatment pain becomes more bearable for you.

But here we need you to be courageous to embrace that support. You don’t have to feel afraid or apprehensive anymore. This is just an OCD. We can get out of it very easily, but there is a process for it.

I want you to write the keywords “injury pain” and “treatment pain” in your notebook to remember this story whenever it becomes difficult to tolerate your pain i.e. anxiety.

When I ask you to spend about 15-20 minutes on the revision daily, then you must follow it as it is a part of your treatment, since it is the disorder of thoughts and thus could be treated on the level of thoughts only. Here I am just giving you a direction for it, but you need to apply that on your own. When I taught you about the “Iceberg theory”, I mentioned that something could only be made to reach the ‘unconscious’ mind when you continue with revisions even if you have memorised it. Here we have to make all these lessons reach your unconscious mind, otherwise, you might get disturbed by OCD thoughts again. Since, if you leave this process in between, by not actually following it properly or doing it carelessly, following certain directions while leaving the others, the problem might occur again. Therefore instead of risking the proneness to it, it’s better to bear the treatment pain now, and you would be completely out of it. You just need to have trust in this process. This is not an experiment being conducted on you; instead, this is how everyone gets treated from it.

All the lessons I have taught you till date like the ‘TEA Model’ – to explain the interconnection among Thoughts, Emotions, and Actions. Now you even know the difference between the brain and the mind, that the mind is the software in the hardware of the brain and how your problem is related to your mind and not your brain. I am constantly stressing that your brain is not problematic, it’s the mind that is causing the trouble, and we are treating it, which is what psychotherapy is for.

As explained through the 'Iceberg Theory of Mind', when we are talking, the conversation is received from the conscious mind, and when we memorise it, it travels to the subconscious mind; but the problem of OCD lies in the unconscious mind and this is the only medium through which we can treat it. OCD is like a virus while psychotherapy is an anti-virus. As this virus has invaded your unconscious mind, we, therefore, need to install the antivirus over there. Hence, believe me, just keep revising these sessions daily and make these lessons reach your unconscious mind; and you would surely get out of it.

You are not advised to stop or taper the medication without the doctor's advice and nor to stop the revision of your sessions' content. Physical exercise can do wonders when it comes to the treatment of OCD so I highly recommend that as well for your schedule.

In the next session, we would talk about the neurobiological understanding of all these thought processes occurring in our brains.

Until then, keep revising thoroughly and attempting to develop a habit of exercising; this is the stage at which you can begin practising ignoring your obsessive thoughts and trying to avoid your compulsive acts. I will see you in the next very crucial therapy session.

(End of the session)

Session-6

UNDERSTANDING THE PROCESS OF NEUROPLASTICITY

Therapist: Today, before we begin with the session, I would like you to evaluate yourself based on now how much things have become manageable for you, in terms of percentage, as compared to the initial period, when you came for this therapeutic process. What is the main difference between the initial phase and the phase you are in right now?

(Note – Only at this phase, a therapist is advised to ask how their clients feel and not before. This is so because the psychotherapy as well as the medications take at least 4-6 weeks to become effective. The client must also be specified beforehand to not expect a dramatic change in a week or two and be patient)

With accurate medical management and a continuous understanding of the basic concepts behind this disorder, gradually we start realising that whatever one deems to do, depends entirely on one's own hands; yes, one can control their thoughts and emotional levels. Eventually what happens is that after realising this simple process, one gradually gains control in their hand.

So, regarding today's session, firstly let's recall the camel effect, what did we learn from that?

- Neither think about the thoughts of OCD nor deliberately try to stop it, simply ignore it by not giving it any importance, which would eventually lead to habituation. Hence a certain concept of habituation does occur in our brains.

Then in the later session, we saw some short video clips. What did we understand in those?

- How to ignore our thoughts practically. A thought is merely like a sound or a voice, it can utter anything irrational, but do we have to agree with it or not, is in our hands. Do I have to give that thought any importance, is in my hands. Now how to ignore it? Just realise one thing, till today whenever we used to talk about ignorance, we used to actually refer to deliberately controlling our thoughts, but here we are not asking you to stop them. Here we are asking you to let your voices speak and continue doing your work. Let the thoughts come, no need to get scared of them since now you must be aware that these thoughts are just the *devil's voice*; that these are not your thoughts but OCD's thoughts.

Now we are moving towards the next level which is the purely biological level. As I said the last time that I would be explaining to you what actually occurs in our minds and brain. So now I would be making you watch a video and I would pause the video amidst the important dialogues to make you understand better.

There is a concept known as 'Neuroplasticity'. Have you ever heard of this word before?

Client: No/Yes.

Therapist: It is actually part of 'cognitive neuroscience' which is considered the most complicated and in-depth science of the brain.

So, I was wondering how to explain this concept to my clients so that they have the awareness of it because I believe that if you are able to comprehend this process, then it would become really easy for you to understand how to handle OCD or how we can actually reverse the

process of it. Therefore, while working on this agenda, I started to look for a simple explanation of the concept of 'neuroplasticity' over the internet and fortunately came across a video. There is a young IITian, Hitesh Shakya, who made this video about the process of 'neuroplasticity - what it actually is?' The resource person's way of explaining is so amazing that even a 5th grader would be able to understand this concept easily. However, I would also be pausing it in between to discuss and make you understand things better. Once you understand the concept of it you would be able to get a clear idea and will help you make sense of all the previous sessions we completed so far; such as how our unconscious mind works, how the TEA model works and how all these concepts are related to one another.

(Start the Video – 'Understanding the Process of Neuroplasticity')

<https://www.youtube.com/watch?v=JI9NCYu8jzo&t=108s>

This states that our brain cells, also known as neurons are about ten thousand crores in number.

It is called a wire because when you observe its structure under an electron microscope, it would appear somewhat like a thread. Usually, whenever we try to visualise a cell, we have a round shape image in our heads but neurons are not circular in shape they have more of a thread-like structure.

Now try to understand it properly, like the way he has explained how a sound comes from external stimuli and then it is converted into electric signals which are received by a neuron which later takes it to the consecutive part of the brain. Actually, every region of the brain is well defined for its function like the 'hippocampus' is related to memory, the 'amygdala' to memory; the 'occipital' to vision etc. Now suppose I get injured by an iron nail at my foot. As soon as I get hurt where would the message go instantly? - In the brain; since that's how we would get aware of the injury but where did I actually get hurt? – At the foot. Now as soon as I got hurt, my nerves perceived the pain, and the message travelled through there and finally reached the first neuron of my brain. The first neuron received the message and passed it on to the next neuron which transferred it to the third neuron which further sent it to the next neurons. That is how the message kept travelling through thousands and millions of neurons and finally reached the designated region of the brain, where it could be identified and interpreted as pain.

This is an automatic process by default. Now how is this accurate process? Suppose I switched on an electric point, as soon as I press it, this tube light gets lit immediately. Did this process take any time? Did the current get lost anywhere from its circuit?

Client: No.

Therapist: No, right? It is an immediate, instant process and would have occurred similarly even if the tube was placed at some distance of ten feet or more. This process is so instantaneous in nature. Now each switch is installed for a particular tube, it isn't like by pressing one switch, a different tube gets lit every time. Each circuit works automatically. Similarly, circuits are built inside our brain and body, for the accurate transfer of information, which is explained in this video. Whenever we receive an auditory stimulus, for example, it gets converted into an electric signal which is then captured by the neuron. This is how the message travels through 2,3,4,50,60...lacs of neurons and reaches that particular part of the brain where audio signals are interpreted. Therefore, no matter how many thousands and millions of neurons the message has to travel across, it always manages to reach its destination within no time, inside our brain.

(Note to the therapist – You may pause the video as many times as needed to explain the concepts to the client in layman terms appropriate to their level of understanding).

So here he is explaining the concept with the help of a diagram and the image next to it is shown to explain the thread-like structure of the neurons in our brain.

One or the other neuron is always firing. 'Fire' is a technical term similar to shooting which signifies the transferring of messages from one neuron to the next neuron. Now, this is the technical term that two neurons 'fire' amongst each other. Hence try to understand it; we are gradually moving towards a step and slowly we would be able to make sense of what actually occurs in our brain and finally how to handle it. This whole process stands for 'firing of the neurons'

Now, this is important to understand that it is not mandatory for the neurons inside my brain to fire only when I am doing a particular task. Even if I am sitting idly and wondering about something and constantly start to ruminate about it, the same neurons would start to fire. Let's understand it with the help of an example.

(Note to the therapist - this is an activity which includes imagining a particular scene by making the client close their eyes and visualise the things, the therapist asks them to. The motive of this activity is to make the client aware of the fact that it does not matter if one is actually living the situation or just imagining it. When one imagines, the same neurons fire in one's brain which would have fired if one was actually living that situation)

Therapist: How have you travelled for therapy today? through car? bus? or some other conveyance?

Client: Car.

Therapist: Where is your car parked? Is it outside the hospital or in the parking? This or that side of the road?

Client: XYZ.

Therapist: All right! Now we would perform an exercise, hence close your eyes. Now you would have to listen to my commands and do as I say. You have to vividly imagine and visualise whatever I say.

Keep your eyes closed, you don't have to actually do anything but try to visualise as I say like you are watching a movie, - "You get up from your chair, you opened the door of my room and went out of the room. Now you are moving towards the stair; now you start to walk downstairs and reach the ground floor. As soon as you reach the glass door, it opens; you get out from the door and as soon as you start moving towards your right side, you suddenly see a car approaching from the 'hospital emergency' area. The car is coming at a fast speed; hence you stop aside and let it reach. A person comes out of that car who seems to be in a hurry so you let that person pass and then you continue to move towards the gate. There you see the security guards standing. You do not stop and continue moving towards the gate; then as you approach it you see a bus crossing the road. You wait for the bus to pass and then move towards your vehicle parked outside."

Now you may open your eyes.

So, as I was narrating, were you able to visualise anything? When you went out from here, and the glass door opened, a car was approaching, were you able to visualise it? What colour was it?

Client: Red/Black/XYZ.

Therapist: You even saw a bus crossing, right? Please describe its colour as well.

Client: White/I did not see any color.

(If the client is unable to visualise color, ask the client if he was able to envision any vehicle. If yes, then continue to the next step, if no then make the client visualise again and keep your speed slow while narrating. In the later texts, it will be explained why some people are unable to visualise while others can)

Therapist: Now tell me, did you actually get up from here and went towards the glass door? Was there actually some car or a bus? Then how were you able to see them so vividly?

Client: No.

Therapist: Then how were you able to see them so vividly?

Anyway, even if the car was actually approaching or the bus was actually crossing near you in reality; you would have been able to see it likewise, right? But surprisingly you managed to visualise all these things despite them not actually being there. Hence through a visualisation where did the message in our brain reach? Towards that area where it could be interpreted as a vision

This states that despite nothing being there for real, you still managed to fire the neurons of your brain, merely by your thoughts, to envision the car, the bus, security guards, the glass door, and everything else, similar to a real experience. Hence, the neurons fired to the same extent, as they would do in terms of an actual experience. Getting the point?

Now you said that you weren't able to properly visualise the colour of the car, hence we would understand the relation of this concept with it.

The colour might be blue or could be white; if you have had attempted to do it with more intensity and passion. I am sure you could have managed to envision the number of people in the car who came out of it, or the estimated age of the patient. Just realise that your brain has so much power that it can really convince you regarding the presence of something which is actually not there.

OCD thoughts convince us similarly inside our brains. A recurrent thought like getting contaminated (*or mentioning the client's current compulsive/obsessive thoughts*) is leading to the intermittent firing of the same neurons.

We consistently start to train our brain about a particular perturbing pattern that it actually starts to develop the symptoms for it. This is an interesting concept where the brain actually starts to convince us about having a particular problem, which would actually not be there, why?

Because it can create the symptoms for it but not the actual malady. It can create a 'bus' or a 'car' but merely as a visualisation inside our brain, and not as a reality.

Our brain is so powerful that it can actually convince us about having a certain problem. But it can only convince us and cannot actually create the problem in actuality. Hence the firing is occurring constantly, again and again since we are thinking about it very frequently. Now, let's understand what happens due to the frequent firing of the neurons

Now gradually we are moving towards the aetiology of this concept, that is we are going to understand the causes behind the making of OCD. Once we would be able to get through it, I'll be showing you another short video to make you understand, how to break the already-made circuits in our brains.

So, the guy in the video said that 'neurons that fire together, wire together'. Further, he would be explaining that when a neuron passes a message to another neuron, that is when it starts to fire, and then both neurons try to connect with each other. Thus, when two neurons fire amongst each other, they actually try to wire together, i.e. they connect with each other.

The more a thought would be fired, the stronger it would get. For instance, I thought that I am contaminated (*for example, or you may use the client's current dysfunctional thought as - something bad would happen*), 5 times or 500 times; just try and analyse what would have happened when I thought it for 5 times and then for 500 times. What if I repeated that thought 5000 times; just try and think about the strength of the firing that must have occurred inside my brain. This is why you felt so apprehensive, it was pretty obvious. But we can actually rectify it, how? With knowledge, this is what we are trying to do.

Memorise this, neural circuits get created inside our brain when we repeatedly perform a task.

Now, please understand that no circuit gets created on doing something twice or thrice. Whenever we practice something, as this person explains in the video he practised so much, that it eventually leads to the firing of the neurons every time he practised. Hence by practising that for hundreds and thousands of times, due to consecutive firing, it turned into the wiring of the neurons. Now where ever the wiring occurs a neural circuit gets created.

I hope you are getting the point or at least are able to relate to it. Now we are able to understand that when we repeat an activity constantly, be that done in real, it eventually leads to the development of a neural circuit in our brain. Once that circuit gets created, we don't have to do anything especially, it gets activated on its own with trivial stimuli or a thought, and we keep on getting stuck with it.

I hope you know how to type on a computer.

(If the client is not aware of typing on a computer, ask if they can type on their mobile phone. If so, do this activity on any mobile. If not, then skip this task)

So, here I am opening a Word file for you. Suppose I have to write my name and I don't know typing, so how would I write it? By typing one letter at a time, while looking for it over the keyboard; If I know a little better about typing, I would be able to type faster (*demonstrate it with an example*). What if someone knows typing pretty well? You might have observed that they don't even need to look at the keyboard while doing it. They just keep looking at the screen,

while their fingers keep running over the keyboard. Now I would like you to type a word over the computer (*hand over the laptop to the client with an open Word file and make them type anything*).

So, I have observed that you didn't have any difficulty in finding the letters while typing those. Now a keyboard is basically designed in three rows where all the letters are placed (*draw the three rows in a box in their provided notebook to illustrate the keyboard's design*). You have to write all of the letters you used to type your name; simply write these here on paper in the manner that which letter would be situated where on an actual keyboard.

(Let the client finish the task)

Let's see how well you did with the placement now.

(Note to the therapist - Circle the errors made by the client as compared to the actual keyboard and discuss it).

Now here you need to understand that if you were not aware of the accurate placement of the letter on a keyboard, then how were you able to type it so rapidly over the computer? While locating the letters, you took a lot of time and even despite thinking about it, you made so many errors. So how were you able to type it accurately but made errors while writing it on the paper otherwise?

This makes a valid point that we need to think about. I have conducted this experiment on *n* number of my clients to date, and if someone would cram it, this would stand as an exception in a different scenario; but literally, no one in my observation has been able to complete this task without any errors. Hence this states that no one is aware of the accurate location of these letters over the keyboard since they are not placed in sequence or alphabetical order, but if you ask anyone to type it, they would be able to do it effortlessly.

(Note -Demonstrate by typing ABCD...)

So, what is this? How is it possible?

It is 'neuroplasticity'! Actually, when we started to learn typing initially we might have practised it about 100, 200, 500, to 1000 times. So here by recurrently practising with our fingers a circuit got created in our brain; we didn't even realise it and we eventually got used to it. Now, let's recall the 'Iceberg theory'; we learnt about the conscious mind, subconscious mind and unconscious mind, and I even told that OCD gets generated from?

Client: The unconscious mind

Therapist: Yes, our unconscious mind. Now I hope you are able to understand from where are we actually able to type; our unconscious mind.

Now you would be able to understand the necessity of revising the content. Not revising it would lead the information to remain at the conscious and subconscious levels only, but where is our actual problem? At our unconscious mind. So, revising it again and again, it would lead to the development of the neural circles in the brain. This information would strike exactly at the place where the disturbing OCD thoughts are being generated and you'd be able to realise

that the problem is not you but OCD. Therefore, if I manage to stabilise it in my unconscious mind, I would gradually get habituated.

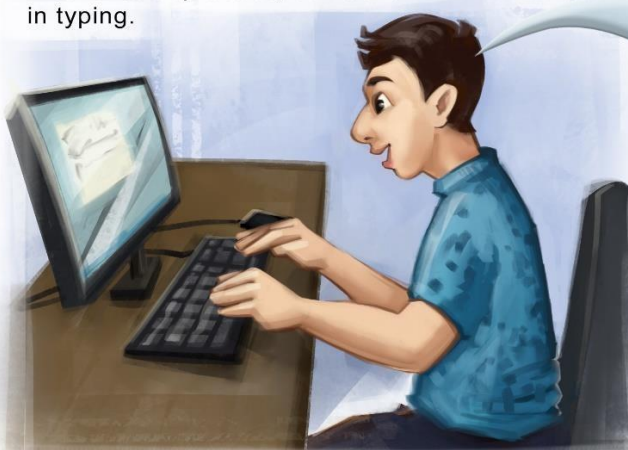
Beginner taking time to type.



After practice, speed increased.



After a lot of practice, so fluent in typing.



Practice Effect

Now you would be able to understand the concept of 'not to think the thought, neither tries to stop it', let the thoughts occur, they would keep coming, you just have to not give it any importance, even bear the anxiety of it and it would gradually lead to a decrease in its level as per the 'Anxiety Curve'. (*Soch ko sochna bhi nahi hai, soch ko rokna bhi nahi hai; kya karna hai? Ignore; Kaise? Importance naa deke; usse kya hoga? Habituation. Fir kya hoga? Soch hogi par pareshaan nahi karegi*).

Gradually the mind and the brain would get habituated and the thoughts won't be able to disturb despite being there. Now you would be able to relate the 'Iceberg theory', 'Camel effect', 'Short videos' and 'Neuroplasticity' with each other. This is not your fault that unknowingly you gave importance to the OCD thoughts, which would have actually occurred due to the chemical imbalance inside the brain. Unknowingly, you thought about the thoughts that OCD lead you to think not once but innumerable times, which eventually leads to the development of circuits in the brain. Hence as soon as the thoughts occurred, they automatically lead to anxiety and therefore, to ease the anxiety another circuit was created in the brain which led to the performance of some action or compulsive behavior.

So just relax. All this occurred because of the unintentional faulty neural circuits created in the brain. Now till here, we are able to understand how these circuits are created but this isn't the treatment. As we have just understood how the thoughts got stuck due to the chemical imbalance, which leads to ruminations, thus leading to the development of neural circuits. And now we would be talking about how to break the already-made neural circuits.

A very significant role would be played by the medicines as well. Think of it this way; you have something really hard and difficult to break such as cardboard. So, to break it, it is usually softened; if we dampen it, it would become easier to break. Similarly, the medication plays its role; it helps in softening the circuits by working on the chemical imbalances. But in order to break the circuits completely one has to go through the process of therapy.

Now the medication would only be able to soften and not break the solid-built circuits, as soon as the effect of the medicine gets over, the thoughts would occur again. Therefore, it is important to break the circuits once they are softened. Hence both the 'Therapy' and 'Medication' are required to work consecutively for the treatment. Now the medication would be doing its job simultaneously, that's why you had been highly advised not to stop it; since the therapy won't work till the neural circuit gets softened.

Now let me explain 'How to break these already-made circuits'.

For this, I am going to show you a one-minute video

(Note- Play 'Principles of Neuroplasticity')
<https://www.youtube.com/watch?v=II5Li94UngQ>

This would help you understand how to rewire your brain.

Thus, this proves that our brain is so powerful that it can either bring a lot of calmness or it can give a sensation of maladies.

This line is very important to understand, where they are directly asking whether there is a reliable way through which we can condition our brains for a better experience. If this is how wiring and rewiring occur; then there must be some process through which we could restore it to normal functioning.

So here they have mentioned 'synaptic pruning' as the answer. You must have got your hair trimmed whenever you go for a haircut. You actually don't get it cut but trimmed to get it even. Similarly, a gardener also cuts the extended branches of the plants to make them even which is known as 'pruning' in technical language i.e., shaping the extra uneven leaves and stems.

Now synaptic pruning stands for the process of 'pruning' inside our brain i.e., shedding of unnecessary neural connections. Let's understand how it is done.

When we see neurons under an electron microscope, zoomed for about multi-thousand times, they would appear somewhat like this (*indicate towards the paused video*). These thread-like structures are neurons and here firing is shown with animation i.e., a message is being transferred. The more it would tend to fire, the more it would wire; meaning, these neurons would try to connect more with each other.



Neurons that fire together, wire together.

Now please write down 'Neuroplasticity' with its first principle that 'neurons that fire together wire together' and the second principle 'use it or lose it'.
(Ask the client to jot these in their provided notebook)

The entire system of our brain works with these two principles only. The first principle is about the development of the structures inside our brain and the second is about breaking those structures down.

Now the image here shows that these two neurons are far from each other since there hasn't been much firing amongst them, but the other two neurons which are closer to each other have had been through the process of 'firing' already. But if we tend to stop the firing between these two, gradually they would start getting spacey and eventually get separated. On the contrary, if these separate neurons are 'fired' then 'neurons that fire together wire together'. Therefore,

new circuits will develop and the older ones shed. This is a continuous process inside our brains.

Now let's understand this with a more basic example. Suppose there is a park right in front of your house and people mostly cross that park diagonally through its centre, thus creating a rough path in between the park similar to an unconstructed road where the grass has subsided and the ground has become visible.

It is called a 'Field Pathway' (*Pagdandi*, in Hindi). Now you suddenly realise that this footpath obstructs the pleasant view of the park and you decide to remove it. So, what would you do?

Client: XYZ



Use it or Lose it.

Therapist: You must obstruct the path. The grass has a natural tendency to grow back over the ground that will not be used; thus, we would have to do something to prevent people from using that path. As a result, the path would eventually disappear as per the principle of neuroplasticity: 'Use it or lose it'.

We now know how to break it, just like we know how to break an old neural circuit in our brain that was made by repeating the same behavior. Therefore, I said, "Not to think the thought, nor to stop it, but simply ignore it by not giving it any importance, like not walking over that path".

We make a new route by stringing some ropes for guidance. So now, when a person would cross that new route again and again, a new pathway would get created, similar to the creation of a new circuit, on the second principle of neuroplasticity: 'Neurons that fire together, wire together'.

Now there are two things-

Tell me if you don't use that path for three, four, or five days, will it vanish?

Client: No.

Therapist: Exactly, because ignoring obsessive thoughts in OCD for a few days will not make them go away. It will most likely take 30, 40, or even more days to begin to fade. But what do most people do?

"I tried this for a week, but the root is still very much there", people complain.

So, my response to them is 'Knowledge is Confidence,' which means that I am aware that even if I start ignoring and stop giving importance to irrational thoughts, I will still feel uncomfortable. Because that route has not yet been engulfed. In order for it to eventually enclose, I must cease my compulsive acts, no matter how inconvenient or how long it would take to disappear. One should not lose hope after only a few days because this process may take a bit longer to show results.

It was obvious that the grass along the newly desired route would be wet or slippery, making it difficult for people to cross it at first. However, if people continued to move through the wet, slippery grass, meaning that they did not stop using it, this would eventually result in the creation of a new footpath. Isn't it?

Whenever we say "tolerate your anxiety," according to the "anxiety curve," i.e., keep moving over the wet, slippery route, there would be a hassle, but according to the "Knowledge is Confidence," though it would be challenging for a few weeks, there is no need to get scared and keep moving. It is obvious that continuous usage of this path would result in the creation of a new circuit. Now that we are discussing OCD, we have a complete understanding of the idea that these thoughts are just that—thoughts—and that we can begin ignoring them.

Yes, I understand that it would not be easy since these already developed circuits would cause anxiety but the awareness of it would help us deal effectively. Though it would at least take a few weeks if not years. Moreover, you have medical support as well.

When I made you understand the ‘camel effect’ it was a philosophical explanation; the ‘short video clips’ was the psychological explanation and today all about ‘neuroplasticity’ is the biological explanation of the same.

Now you should be very confident in terms of understanding this entire process.

(The following step is optional; The therapist shows the book ‘You are not your brain’ by Jeffrey M. Schwartz and Rebecca Gladding, and asks)

Therapist: What is written over here?

Client: You are not your brain.

Therapist: Now you must be feeling that the OCD is actually due to the structure of the brain, due to the already created circuits but according to this book you are not your brain; instead, you can change your brain, how? “By using your mind”. By now you must be familiar with the difference between mind and brain as per our previous discussions. Hence you can change your brain by using your mind through the power of ‘self-directed neuroplasticity’. It is me, the self, who has to do everything to restore the structure of my brain.

Now everything is in your own hands. People usually ask me that ‘if I am not my brain then what am I?’ I say - ‘I am the mind’ i.e., the type of thought we would have, similar neural circuits would get created. Now we know this secret.

The old wise people mostly used to say that ‘always speak the good’, what it actually meant was that if we are speaking negatively then the wiring is occurring likewise. Those old wise people did not have the scientific knowledge but they had the wisdom and today we are able to finally understand the value of always speaking good or positively.

At the beginning of therapy itself, I said that I would not tell you - Don’t take any tension instead I would teach you how not to take it. The mind and the thoughts are in my hands and once I have the awareness of what is harming me, I can overcome it by ignoring my thoughts.

Our next sessions would comprise some tools which would facilitate how to handle or train the mind.

I expect you to be well-versed in the lessons we have discussed to date. It would not take more than 15 to 20 minutes daily to revise all the chapters. By now, you are very well aware of the importance of revision and regular intake of medications. The more you would revise the more wiring would occur in your brain to create new circuits and break the old ones in order to lead to a significant improvement and a healthy future. And, for a quick result, keep practicing ignoring your obsessive thoughts and avoiding your compulsive behaviours with your best efforts.

(End of the session)

Session-7

HELPING TOOLS

Therapist: Before starting with today's session let's have a quick recap.

(Ask the client to outline what has been taught till now)

Therapist: In today's session, we'll be learning about some tools. These tools are basically the techniques that will equip you to handle your condition of OCD in the most efficacious way. As of now, you have understood almost the complete process of how this condition of OCD affected you and how to come out of it. These techniques will make you feel confident enough to work on yourself with ease and will eventually prevent relapses too.

The first one is the 4Rs.

1. **Re-label:** Re-label basically means to remove the label that stated 'YOU' were responsible for those negative thoughts and compulsions; instead put on a new label which claims that whatever was happening was not because of YOU but it was predominantly owing to OCD. Think of it as a white label with the word 'Me' on it. We have since removed that label and replaced it with a new one that reads 'OCD'. This implies that OCD, not I, was to blame for all that was happening.
2. **Re-attribute:** Attribute means the 'cause'. Initially, my brain leads me to believe that it is 'My Thoughts' that is the source of all my distress. I was compelled to believe this because I had labelled 'myself' as the perpetrator and 'my thoughts' as its reason. Re-attribute is to think that something else is to blame for your unpleasant ideas, essentially believing that the source of your negative thoughts was a 'Chemical Imbalance' in your brain and not you. When we feel the guilt of doing something, isn't it too burdensome? And now what if I shift the blame on something else; wouldn't it relieve me from the burden that I am carrying all along? This burden leads us to believe that one is getting mad causing a lot of distress, irritability, restlessness and whatnot. I felt compelled to think that I was to blame despite the fact that the source of all this misery was not at all obvious to me. You will subsequently feel quite calm, stress-free, and cheerful if you believe you are not at blame. So now we strike off 'My Thoughts' as the cause and re-attribute the cause to the 'Chemical Imbalance'.
3. **Re-value:** Let's take an example, you have two fifty-rupee notes. Consider that one is quite old, whereas the other is a new and crisp note. Will their appearance affect their worth? No! However, an OCD-affected brain often loses its ability to make correct judgements, causing one to wash their hands repeatedly after touching anything. It's similar to believing that a crisp, new fifty-rupee note is worth Rs. 500 and an old one is worthless. Our brain, in fact, creates various distortions based on valuations. We cannot see the exact situation. Our minds either exaggerate or underestimate. In such circumstances, you only need to re-evaluate the situation, maintain mental control, and normalise the situation by choosing to ignore any unimportant ideas that arise.
4. **Re-focus:** Suppose that your focus is towards a poster (*Note to therapist: show any poster on the wall*) and now I am instructing you to focus on the door; so, what you will do is defocus yourself from the poster and refocus your attention towards the door. Let's say you are having a string of unsettling thoughts. In this case, you should ignore them and not give

them any importance. Instead, get up and do something else to redirect yourself. You don't need to stop thinking; just let it happen. But don't allow it to consume you; keep working on your chores. You may then refocus your thoughts by removing all the irrelevant and inconsequential ones from your head by just not giving them any credence.

The next tool is the 4Ds.

1. **Delay:** If you ever get struck by the thought of washing your hands just after touching someone, simply delay the thought for a certain period of time. Trick your brain by delaying the thought. While postponing, the idea will provide our brain with a momentary sense of satisfaction, and merely delaying the thought will potentially not cause much distress, thereby, not triggering our anxiety and helping us to stay relaxed. Eventually, with time our focus might shift towards some other thing, putting an end to that thought. This happens only when we learn to gain control over our minds.
2. **Drink Water:** It is like a heuristic approach. There is an age-old saying that drinking water can break the chain of thoughts and divert your attention spontaneously.
3. **Deep Breathing:** Practicing deep breathing techniques assist with relaxation and improves our attention and concentration. Try to practise it frequently; if we make it a regular habit, we can manage our stress and anxiety levels more effectively.
4. **Distraction:** This again implies to Re-focus, but distraction isn't about stopping our thoughts, it is primarily about re-focusing our thoughts; not giving any importance to our negative thoughts thereby completely ignoring them.

The last one is 3As.

1. **Awareness (ज्ञान):** As we know that 'Knowledge is confidence' so, the more a person gains knowledge about one's mind, thoughts etc. the more easily one is able to have control over their thoughts and master their mind to get a desired outcome. Since you are now absolutely aware of how the brain and mind work, the difference between brain and mind, the T-model, neuroplasticity etc. As you have gained knowledge, so our next step is acceptance.
2. **Acceptance (मानना):** Acceptance simply is acknowledging and embracing reality. Now you have accepted that it was the OCD and chemical imbalance that was at fault and not you. So, not only did you understand the problem and its solution but you also accepted it. But, do you think awareness and acceptance are enough? So, what should be our third step?
3. **Apply (करना):** It is easy to estimate that we are at a phase where you have understood the things and have accepted them as well but now the most crucial step towards change is to 'apply'. ALL these steps will be worth nothing unless you incorporate them into your daily life and make them an integral part of your routine. Towards the end of our psychotherapy lessons, we have now learned a lot of novel things that we can apply to our lives, like these tools, contentment, laughter, exercise and so much more. If you continue to apply these regularly with a smile on your face, you will find yourself so much in control and your OCD's vicious circle will break.

And finally, another essential thing is medical compliance. You must continue the doses as prescribed by your doctor so as to prevent a relapse of OCD.

(End of the session)

Session-8

PREVENTING RELAPSE

Therapist: Today before we begin with the session, I would like you to evaluate yourself on the basis of how manageable things have become for you as compared to the initial phase and I would want you to rate yourself on a scale of 100 accordingly.

(Address the doubts, obstacles or difficulties, if any, expressed by the client)

Let's get started with today's session. During this session, we will delve into the essential elements to prioritize after incorporating the therapy's learnings to avoid any potential relapse. It is critical to understand that whenever we perform any daily chore or routine work, our brain releases a chemical/stress hormone called cortisol, and stress is a natural and inevitable part of our lives. Daily life stress does not have to be traumatic; everyday tasks such as studying, applying for jobs, cooking, and so on can cause stress. This is the primary reason that these hormones come so easily to our brains. In fact, the cortisol hormone prepares our bodies for any stressful situation, but excessive secretion and its staying at high levels for long periods of time can cause disorders in our bodies and is obviously harmful to us.

However, because nature has made provisions for all negatives to be balanced by certain positives, the cortisol hormone in our bodies also has a balancing factor by the name of Endorphins hormone.

Endorphins hormone is primarily derived from three sources: exercise, laughter, and contentment. Now let's understand these in detail.

Exercise causes our bodies to produce endorphins, which balance out the cortisol hormone, keeping us healthy, happy, and active throughout the day. But have you ever wondered why you should exhaust your body so early in the morning that you are not only left with enough energy to work all day? The answer is that exercising early in the morning releases Endorphins in your body, which balances out the stress hormone and activates your happy hormones and glands. Exercising has thus been termed the best thing to do in the morning to keep your body healthy, happy, and active throughout the day. This is also why exercising at night is not recommended because it stimulates your mind and can disrupt your sleep cycle.

Laughter: The saying "Fake it, till you make it" fits the best in this situation. When we laugh, our facial muscles move, we feel happiness from within, and a few of our glands become activated, causing endorphins to be released, causing our body to feel happiness in a natural form. You've probably seen some laughter clubs where they make you laugh in a fake way and then before you know it, you're laughing your heart out. This is primarily due to the fact that even fake laughter activated some of your glands, resulting in the release of the happy hormone - Endorphin. That is why they say "Laughter is the best medicine."

Contentment means 'satisfaction,' which can also be interpreted as a grateful attitude, in which we thank the Almighty or the Supreme Power for everything we have received in our lives. It is common for humans to complain about unfulfilled desires or to carry an endless list of wishes with them. This constant dissatisfaction leads to stress and unhappiness. According to the 'Iceberg theory of Mind,' our mind picks up on things we do on a regular basis and sends impulses to our brain accordingly, so regularly asking or complaining to God about unfulfilled wishes and not having a grateful attitude makes our brain think we are almost deprived of

everything, and our brain tends to release stress signals and stress hormone - cortisol in our body, making it feel more stressed, unhappy, and lethargic. Having a grateful attitude not only releases the happy hormone endorphin in our bodies, but it also makes us realise how fortunate we are to have abundance in our lives that we did not even ask for.

Do you really believe that we all engage in these three activities (exercise, laughter, and contentment) that naturally make us happy? Have you ever done or witnessed anyone laughing for at least 20 minutes a day, or making a list of contentment or gratitude? No! So, how can one expect to feel naturally happy and satisfied if the only hormone responsible for this innate happiness is not released by our bodies? We only release cortisol as a result of our daily stress, and when our bodies require endorphins, we make no effort to provide them. This, in turn, leads to physiological and psychological problems.

Understanding the significance of endorphins in promoting natural happiness is vital for maintaining a healthy and stress-free life. By incorporating regular exercise, laughter, and a grateful attitude into their routine, one can prevent relapse and experience a fulfilling and joyful life. The knowledge gained through this therapy empowers individuals to lead a healthy and happy life by taking charge of their well-being. That is why it is said that 'Knowledge is Confidence', and having a good understanding of our brain and body is very important for an individual to live a healthy, happy, stress-free, and disease-free life.

(End of the session)

Session-9 & 10 REVIEW SESSIONS

The sessions conducted up until now have been held once a week, but the last two sessions are held every two weeks. The goal of this two-week gap is to encourage clients to recognise their own inner motivation and capacities and to believe that they can maintain their own treatment protocol. At the start of both sessions, the entire content is revised. The next step is to encourage clients to ask about any issues they are having ignoring obsessive thoughts. The therapist addresses all concerns and encourages the client to persist in their efforts and complete their homework assignments, which usually include daily content revision, physical exercise, laughter sessions, and developing an attitude of gratitude. The YBOCS test is administered again at the end of the 10th session to track any improvement in their obsessive-compulsive symptoms.

One-month & Three-months FOLLOW-UP REVIEW SESSIONS

Additionally, two follow-up sessions are scheduled, one after one month and the second after three months from the date of the eighth session, to make sure the assigned tasks are being completed and to address any issues or queries that have surfaced since then. During these follow-up sessions as well, the YBOCS scale is used to re-evaluate the clients to see if their symptoms have gotten better or stayed better.

Metaphor Bank

Session-1: Understanding the Problem
(To Realize that Knowledge is Confidence)

1.1 Students in the Classroom

Therapist: Imagine your classroom and answer these simple questions.

In your classroom, I suppose there must be some students who were more knowledgeable, who not only had the knowledge but were also used to interacting with the teachers. Generally, where did these students sit in the class?

Client: At the front seat?

Therapist: Yes! And if there were these studious kids in your class, then on the flip side, I suppose there must be another category of students as well, who possessed less knowledge, ones who did not interact with the teachers. So, where did these students sit?

Client: at the back?

Therapist: Absolutely correct. And not only at the back but just to avoid eye contact with the teachers, they used to hide behind other students' backs as well. Am I right?

Client: Yes.

1.2 Changing the flat tyre with Stepney

Therapist: First, tell me do you know how to drive a car?

Client: Yes.

Therapist: Okay, do you also know how to change the car's tyre with a stepney - the extra tyre?

Client: Yes.

Therapist: So normally, those individuals who know how to drive a car, also know how to change the stepney. Now if hypothetically, a person is driving through the highway at night and unfortunately the tyre of his car gets flat. Well, usually it's very difficult to get any help on the highways during nighttime. In this type of situation, any person would feel anxious and worried. But to the contrary, if that individual is aware that he has a spare tyre in his car and knows how to change it, obviously he'd have a setback but at least he won't feel anxious and helpless. He

will take out the stepney, put his efforts into changing the flat tyre and continue his journey smoothly.

1.3 Spying during a War

Therapist: Have you ever noticed that when there are two countries at war, they send their spies or agents to stealthily invade their enemy's space and dig up as much information as possible such as the location of their bomb mines, the number of their weapons and gun-powder, their artillery and other equipment and also the exact location of their troops. If my agent is able to collect all this information and hand over it to me, imagine how confidently my soldiers will lead the war because they will know where the bombs are placed, where to attack and where to be cautious.

To the contrary, imagine I have no knowledge about all the aforementioned things. Then how will my soldiers cross their enemy's border?

Client: They'd be less confident/anxious/scared.

Therapist: You are absolutely right.

1.4 Learn the name of your disorder

Therapist: Imagine that hypothetically, I am at war with China. So, China's president, its lieutenant general, and whoever they are (Wang, Jong, Un, Lee, Ling etc.) all are present during that war. Now isn't it obvious that being a citizen of a different country, I will find their names difficult to pronounce or understand? But wouldn't it be necessary for me to do so? After all, I am at war with them? So, I have to remember the name of my enemies, lest, how will I strategize a plan?

Similarly, in our case, obsessive-compulsive disorder is our enemy, no matter how tough its name might sound, it is inevitable for me to learn it, otherwise, how will I fight it? Isn't it?

1.5 Different reactions of society to physical and psychological problems

Therapist: When we get sick, feel feverish, or our blood pressure increases or we have a headache/migraine or any other illness, what is the most common thing that people do when they meet other people?

They usually tell people that they're not well. If they meet 25 people in a day then they speak about their illness to all those 25 people and if someone calls them over the phone, even then they announce their sickness, their high blood pressure, high sugar, whether they took a leave, what the doctor prescribed and what not. Why is that?

It is because of the reaction they receive from others, their sympathy, their considerations and their caring responses like -

- Oh! How'd that happen? - Let me know if you need my help. - What can I do for u? - I can cover that shift for you -You must take proper rest - Here are some of my home remedies, you will definitely feel better. - Take good care of yourself...and so on.

All these kinds of responses have made it customary that whenever someone falls sick, they tell everyone about it because it is human nature to feel beloved and valued when sympathized.

Now to the contrary, when you tell people about your OCD, what kind of responses do you receive?

Client: They do not understand it.

Therapist: Then what do they say?

Client: That I am mad/getting crazy

Therapist: Yes, just because people do not have knowledge about this, so whenever you try to talk about these symptoms, they usually say that - *This is your misconception, you have gone mad, you are just over-analyzing things, you don't try controlling them* etc.

After hearing all this, an individual who is going through such distress thinks that instead of understanding my problem or sympathizing with me, people are instead criticizing and naming my disorder a mere misconception. Why did I even tell them about my condition?

This reaction becomes the main reason that people do not like to share their grief with others. This is why we haven't heard about OCD clients, in general. Everything comes to the point that in our society people are not adequately aware of this disorder which makes it extremely difficult for the sufferer to share their problem. They feel as though they already are so much in discomfort, people will aggravate their grief and despair.

Now OCD is such a disorder that if a person looks at your face, can he tell if you suffer from OCD?

Client: No.

Therapist: If you won't tell anyone, can they guess you have OCD?

Client: No.

Therapist: This is why no one can judge it from one's face and nobody shares it. Therefore, you cannot distinguish a normal person from one with this disorder, despite the fact that there are thousands of them.

1.6 Homework

Just like any other regular teaching class, in this class too you will be given homework after every therapy session.

Session-2: Understanding the Mind (Role of Psychological Processes in OCD)
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2.1 Situations: Control, Change or Accept?

Therapist: I am going to ask you some very fundamental daily-life questions which you will have to answer me.

When it gets dark at dusk, and you enter your room, what is the first thing that you'll do?

Client: I will switch on the light.

Therapist: Hypothetically, it's raining outside and you have to go out, what will you do?

Client: I will use an umbrella.

Therapist: It's freezing, you feel very chilly, what will you do?

Client: I will wear jacket/warm clothes/use a quilt.

Therapist: Very well, so I asked you three very basic questions and you responded in a simple yet straightforward way. Do you know these simple things have a very deep and insightful meaning to them? Let's discuss how.

I asked you about three things - DARKNESS –RAIN –COLD

If we look at these things from a different perspective, did you try to control or fight with them?

Client: No.

Therapist: In fact, forget trying, you didn't even imagine it being a possibility. Why is that?

You didn't even consider controlling the dark or asking the rain to stop for a while or didn't ask the cold to subside.

Nothing as such was thought or done, right?

Because we know what these are the circumstances or situations, and these conditions are out of one's control, it is literally impossible to direct them.

What I did do instead?

I turned on the tube light, used an umbrella, and wore a warm sweater.

It means that rather than fighting with these situations, I found some other alternatives which made these circumstances either inapplicable to me or their effect on me reduced significantly.

For instance, it was dark, you switched on the light, and the darkness disappeared totally. In the case of rain, you used an umbrella, some drops of rain did touch you but you didn't drench in rain and it was manageable. For cold, you wore a sweater. Obviously, the weather didn't change but you made it bearable.

Hypothetically, if you requested the rain-

“Please stop for a while, because I have some important tasks to complete” Would it stop?

Then you shouted at it, *“I am telling you to stop, I have to go out and do some chores, why the hell won’t you stop?”*

Then what? Will it stop?

Now you get more agitated and screamed and started throwing objects or stones towards the clouds and yelling at them to stop.

What will happen? Will it stop raining?

Client: Of course not.

Therapist: Why is that? Because this is a situation over which I can exert no control.

Normally, in life what do we do? Most of the time we try to fight our circumstances. One is very well aware that these situations cannot be governed; even so, we curse and struggle with the situations time and again.

Actually, life is very simple. Now, simple in what context? If I comprehend that I cannot be in command of my circumstances, then the only thing left for me to do is accept the situation. After accepting that situation, I figure out one way or the other to simplify my life and deal with any situation that arises.

2.2 Coping Mechanism - Smaller or Bigger Glass

Therapist: This is a bottle of water, and this is a small glass. Imagine I open this bottle’s cap a bit and the water started dripping from the bottle (drop by drop), now what will happen after a while?

Client: The water will start filling the glass.

Therapist: What’s next?

Client: The water will fill up to the glass’s brim.

Therapist: Then?

Client: Water will start falling out of the glass

Therapist: Okay, good. Now my question to you is - What should we do to stop the water from falling out of the glass?

Client: We can tighten up the bottle’s cap.

Or, when the water is filled up, we can keep the bottle aside.

Therapist: Okay, so now the drill is that you have to assume that this bottle is my circumstance, and as I specified to you earlier with three examples (darkness-rain-cold) that the circumstances cannot be changed or controlled. Now I will repeat my question to you, what should I do in order to stop the water from flowing out of the glass?

Think about it, this is all the process of therapy. All these conversations we are having right now is the therapy. You will understand later how this will work but currently focus on the hypothetical situation.

Don't worry, just try, and give as many answers as possible, it need not be correct; I am here to help you if you won't be able to answer. This is just a general discussion, not an examination where there is a fear of failing.

Now all the things you asked me to do, I cannot do because the bottle is my 'situation', which I cannot change. Now think differently and tell me what should I do instead.

Client: I give up/can't think of anything else/don't know what to do.

Therapist: When you can't control the rain, didn't you still come up with a solution to prevent yourself from getting drenched? You used the umbrella, didn't you?

So, in this situation, can we use a BIGGER GLASS?

What did I tell you? That we aren't supposed to change any aspect of the bottle, other than that anything can be done. Can't I use a bigger glass instead of a smaller one to hold the bottle's water?

Now there are two possibilities-

The first possibility is that, due to the glass's bigger size, it might contain the entire bottle's water and the water won't fall out of the glass.

What this implies is, although I cannot change my situation but isn't it possible that the situation gradually but eventually changes on its own?

For instance, when we talked about darkness, it is evident that we cannot change the darkness but isn't it imminent that the darkness will subside, and the dusk will change into dawn within 6 to 8 hours? Well, eventually night has to turn into the morning at some point.

In case of rain, if I'll ask the rain to stop it won't, but within one to two hours or so wouldn't it stop on its own?

Now we talk about cold, again, it won't go away if I'll ask it to but it's inevitable that the seasons have to change on their own.

This specifies that 'CHANGE IS THE LAW OF NATURE'.

Now I don't know when the circumstances will change, within an hour, a day or may take more thus, this means that change is imminent but its duration cannot be defined.

So what I did here is that I used a bigger glass creating the possibility that the water will fill up the new glass, without falling out of it.

But there is a second possibility as well. Now, what happened was that when the glass was smaller, the water was filling up the edge, causing me anxiety, panic, and inability to think straight as to what to do next and so forth. Because in such a situation, our brain usually gets panicky and overwhelmed; and we are unable to figure out a way to get out of that distressing situation. Now what we did is we replaced the smaller glass with a bigger one, even now the water is dripping from the bottle, but because my glass is large, I have an advantage i.e., TIME. When one has time, it is easy to analyze the situation with a peaceful state of mind, eliminating the risk of making hasty decisions and comprehending well, that whatever circumstance I am stuck with, I can figure out an approach and make an informed decision and can prevent the distress from happening. In our case, we can delay the water from flowing out of the glass. The time will enable me to find, not just a single solution but I can discover multiple solutions in case anyone doesn't work in my favor and then work accordingly. So what this bigger glass will do is, buy me some time to make a calculated decision. All of this is possible only when my mind is serene, which is possible only if I have sufficient or comfortable time to scrutinize my situation and ultimately all of this goes back to having a bigger glass.

2.3 Stress Management - Plan A, Plan B, Plan C...

Therapist: Imagine the darkness situation. I enter a room, it is dark inside, and the first thing I do is switch on the light. Now imagine there is a power cut, now what?

Client: Light a candle?

Therapist: You are unable to find the candle because it's too dark and you don't remember where the candle is. Then?

Client: I can use the flashlight on my mobile.

Therapist: Your phone's battery is dead. Now?

See, what you are doing right now is finding out various ways to overcome your situation, right? Thinking about Plan-A, or B, or C...but when is this possible? Only when you have a clear and tranquil mind and you have sufficient time as well.

Session-3: Understanding the Levels of Mind

3.1 Mind: An Iceberg

Therapist: I will tell you about an event that has happened in the past. In that event, there was a ship that was deemed to be the world's largest passenger ship when it entered service. Then an unforeseen incident took place. This ship drowned on its very first journey. A movie has also been directed on this happening.

Have you ever heard about it? Are you familiar with the movie's name?

Client: Titanic?

Therapist: Yes, Titanic! Are you aware of what happened to the Titanic in general? Why did it drown?

Client: Yes/No.

Therapist: So, when this ship was constructed, it had been claimed that it is advanced from its time and it was estimated that this ship can never drown. But despite the claims, unfortunately, the ship crashed and drowned on its very first journey and took many lives with it.

What actually happened was that on its journey, the ship crashed with an Iceberg.

Do you know what an Iceberg is?

An iceberg is a large piece of freshwater ice that broke off from a glacier and is now floating in open water. To make you understand this concept well, I will explain it through a diagram. I am making a ship and an iceberg on the surface of the water. So, just the tip of the iceberg is visible. The rest of it is underwater.

Now, talking about the Titanic; various theories have been devised for the disaster but let's not get into that. The only thing relevant here is that the ship crashed with the iceberg, causing utter damage and the death of many passengers.

(Note: The example of Titanic is only used to relate to the client and make him understand the iceberg theory well, metaphorically)

In psychology, a theory was formulated that used an iceberg to explain our mind, which is called - *The Iceberg Theory of Mind*. This theory states that our mind replicates the shape of an iceberg. The topmost visible, small piece of the iceberg represents our 'Conscious Mind', followed by the 'Pre-conscious', and then the bottom-most part as the 'Unconscious'.

3.2 Biological Immunity vs Psychological Immunity

Therapist: It is said that every time we breathe, many germs, bacteria, etc. enter our body but we still do not get ill or catch a disease every time we breathe. How is that?

It is so because nature has devised a natural system called the immune system or the defence system called the white blood cells that fight these germs and bacteria. Whenever any kind of mild contamination enters our body then these cells fight the particular infection and protect our body.

You must have noticed that at times when you feel a little feverish or have a cold, you get better on your own after a while without the necessity of any medications. It is because, the mechanism of your body is built this way, which fights against these trivial diseases on its own, without the need for any external support like medication.

Similarly, there is a defence mechanism in our mind as well which gets activated when we go through a very painful situation or when it becomes intolerable. During that phase, a defence mechanism gets activated through psychological processes which erase or fade that severely painful memory from our mind. This defence mechanism is known as ‘Repression’.

3.3 Body Garbage versus Mind Garbage

Therapist: Even our biological domain of existence i.e., our own human body is filled with plenty of disgusting stuff itself. These are faeces, urine, blood, saliva and other stuff that would usually be considered disgusting in nature when seen directly, and are all accumulated inside our bodies all the time. But the system designed by nature is so beautiful that all these elements when remain processed systematically, our body functions healthily. Similarly, it’s not like as if my mind is full of negative thinking or flooded with useless garbage, rather these are just systems designed by nature the way they are supposed to be.

3.4 Installing Anti-Virus in the Mind

Therapist: Our brain is like hardware and our mind is like software. Whenever a virus enters the software, we get the virus fixed with the help of an anti-virus program. Similarly, metaphorically, the therapy works here as anti-virus software to treat the condition of OCD.

3.5 Levels of Treatment

Therapist: If my hand got a little bruised, can I apply a medicinal ointment and dress the wound myself?

Client: Yes.

Therapist: Okay, so if a splinter enters my hand, can I perform a minor operation using tools such as a tweezer or plucker?

Client: Yes.

Therapist: Now let's imagine I have a kidney stone. Can I remove the stone myself from my kidney?

Client: No.

Therapist: Then? What do I need to do?

Client: You need to consult a doctor.

Therapist: Exactly! I need to visit an expert who can treat me.

Client: Yes.

Therapist: Now let me make you understand how this example is related here.

Envision that you and I get into an argument or a fight. Can we discuss the issue and clear things out? So, it means that if there is an argument or fight on the surface level (related here to the conscious level) then it can be sorted out by talking or apologizing. Just like a minor bruise can be healed by self. Similarly, if the fight or problem cannot be solved by self and the damage is done on a bit deeper level (say, to the level of sub-conscious) then can we use a mediator or a third party (as in the previous example, tools used in the minor operation) to help sort things out? But what if the damage is done on the deepest level (e.g., in the case of OCD, to the unconscious level) where neither the self nor a mediator has any access; then what?

In this kind of situation, one needs to take the help of an expert in this field and that is why you are consulting me.

3.6 Hardware vs Software

Therapist: If you have a basic knowledge of computers, you would know that 'Windows' are a part of the computer which enables it to work. Now, if I ask you to open the computer, remove the Windows from it and place it on my hand or table; is it possible?

Client: No.

Therapist: Right. Because Windows is a type of program installed in our computer, which cannot be removed from it. It is not a physical entity. Similarly, our mobile phone comprises WhatsApp, Facebook and many other apps and systems such as Android/iOS etc.; even if we want to, we cannot physically see these apps/systems by taking them out of the device.

Also, if we talk according to religious sayings, our body comprises a soul which facilitates the body's functioning. Is it possible to emerge the soul out of the body and make it visible?

Client: No.

Therapist: What is happening? A computer has Windows, but it cannot be extracted; gadgets have apps but they cannot be taken out; the body has a soul but it cannot come to light. Similarly, our brain has a mind which helps it operate, but it cannot be taken out of the brain into sight.

Now understand this thing - Computer is hardware and Windows is its software, Mobile-phone is hardware and the Android/IOS system is the software, the Body is hardware and Soul is its software, likewise, the Brain is the hardware and the Mind is its software.

Your disorder is in your mind i.e., Software. That is why you are being treated by a psychologist, who is an expert on the Mind. Similarly, the doctor (usually, a psychiatrist) that gives you the medicine for this disorder is a specialist in the Brain. The question now arises is that if your disorder is in your mind, then what is the use of medications for the brain?

Do you know if a virus corrupts the windows of the computer, again and again, it eventually starts affecting the computer's hard disk as well? Similarly, our distorted thoughts have created havoc in the brain, causing an imbalance of some chemicals.

Session-4: Understanding the Process of Habituation
(Real-life Incidents to comprehend the concept of Habituation)

4.1 Smell of garbage

Therapist: Once there was a young meritorious boy of around 27 or 28 years of age who aspired to do a government job but unfortunately, he wasn't able to get a suitable job as per his desire. Thereby some corporation job opportunities occurred and he gave the exam for it, which he managed to clear along with the interview as well. The boy had been trying to clear the same interview for a long time without any success due to which he had to work part-time and could barely manage to earn somewhat 7 to 8 thousand rupees only. Since the boy belonged to a very poor background, it was his utmost desire to get a government job. Then finally he managed to clear the exam for the government job he had desired and even got the job as a supervisor with a handsome salary of Rs. 32000 per month along with benefits such as job permanence, incentives etc. Hence, he became so glad for his dream had finally come true.

You must have an idea about how the corporation jobs are, so the day he went to join his job, he got to discover that he was placed as a supervisor at the city's biggest dumping zone to look after the efficient functioning of the cleaning staff appointed there. Now just imagine whenever we are travelling in our car and by chance, some garbage truck happens to pass by us, such a pungent smell occurs that we have to pull up the car windows, either we try to cross it somehow or slow down the car and wait for it to go away since the smell becomes unbearable. Now just imagine that this dumping zone, where the boy was appointed, was the biggest in the city where all these trucks used to vacate on a daily basis. Now you can better imagine what could have happened next. As soon as the boy reached the location, it became difficult for him within hardly two minutes. He felt nauseated as to how could anyone sustain himself in such a dirty and disgusting- smelling environment. Hence within five minutes, he decided to quit the job as he thought that the entire environment would literally drive him crazy. He decided to go to the head office and give his resignation immediately.

While he was travelling on his way to the head office, he kept on thinking that he wasn't able to manage a decent job till his 28 years of age and then he somehow succeeded to get this one. He asked himself that how he used to make hardly an amount of 7-8000 only while here it was 32000 per month. Not only a handsome salary but other aspects such as future security, perks etc.; everything mattered a lot to him. Hence before reaching the head office, he was able to figure out that he cannot afford to lose this job. Therefore, he changed his decision right there and then, gave his job more importance, and returned back to his work location.

Now the area had that same pungent smell all over, and he somehow tolerated it. He reached there again the next day and the smell was still consistent therefore he had to continue tolerating it likewise for another 3rd, 5th, 10th, 20th, and 25th day in continuity. So, did the smell stop coming from there?

Client: No it was still there.

Therapist: Wasn't he able to sense it anymore?

Client: He was/He wasn't.

Therapist: He wasn't. Why was it like that; there had been a process occurring inside his brain known as 'habituation' that made him not able to sense smell anymore. And this is not required to be justified to you as you may go and see for yourself, people working over there; Isn't it? And the same people can even be found whenever, having their lunch in the afternoon, standing at a side over the same location.

Does the smell vanish somewhere? It is very much there. Don't these people sense it? They don't. Why not? It is because these people get habituated to it.

4.2 Working inside the sewage

Therapist: The biggest sewage around your area is cleaned once every 6 to 12 months. You must be aware of the fact that all the waste and discharge from our houses get drained through the sewage system. Hence you may well imagine how dirty it would be and how bad would it smell. You may observe during its cleanliness process, a man comes by his cycle, removes his shirt, and gets down in the sewage drain by holding a rope, obviously getting himself smeared with filth everywhere. Won't he feel disgusted by it? Won't it be any difficult for him? It is not. You need to understand this, why, because of habituation. Habit stands for a routine of behaviour that is repeated regularly unconsciously, and habituation stands for the formation of such a concept inside our brain, that despite the presence of the filth and smell you gradually get desensitized towards it.

4.3 The loud noise of the factory

Therapist: This is a live example for you from my personal experience. I used to work for XYZ hospital, about 8-10 years ago. We had a medical camp at a huge area under Ambuja Cement Factory, hence their organizers requested us to reach a night prior to the event since it was a three-hour journey to their location and the camp had to be started early by the next morning. They assured us about our stay arrangements for our convenience. We were about a team of around 12-13 members and we left the hospital after finishing our evening OPD around 5:30 and reached their location by 8:30. You won't believe the moment we entered their gate, they have built a really good infrastructure similar to a mini city with a well-maintained society inclusive of parks, residential area, health club, a primary school, multi-storey flats and many more. It was a huge area where all the employees along with the officers lived in the society with the factory situated there within the campus. We were pretty glad to visit an astonishing place like that. Then they took us inside their guest house which was no less than a hotel, where they had arranged a buffet dinner for us. We had dinner and then we were provided with our individual rooms for the stay. They requested us to be ready by 8 in the morning for their subordinate would come, host us with breakfast, and then take us to the nearby location of the camp. Later, we had a good time together and then left for our rooms to rest. Around 11-11:30 at night about 10 to 15 minutes

must have passed since we all went to sleep, suddenly everyone started to come out one by one in the lobby area and appeared agitated.

Actually, there was a cement crusher behind the residential area which operated for 24 hours and it made noises like "push push push push hmmmmmmmm thapppp" continuously. That rhythmic sound was so disturbing that it seemed to knock in our heads. Just think about it in the extreme silence of the night you are able to only hear a such type of rhythmic noise recurrently; would you be able to sleep?

That's how all of us came out of our rooms and almost everybody seemed bothered by the noise since it was really loud and was thus unbearable. Hence to distract ourselves, we started to chill with each other by playing 'antakshri' as we didn't have any other option. So, we started to have fun by making groups and imitating the crusher noise and then laughing at the sound of it, to lighten our mood. Around 1 AM we thought about the camp we had to start the next morning; also, we were tired already so we somehow managed to sleep through the night. The next morning, as per the schedule, by 8 AM, their subordinate came and very courteously asked for feedback from us about their hosting. We said that everything was wonderful we just want to know how you people manage to sleep at night here. He asked unexpectedly why, what happened. We shared about the noise at night to which he was like 'What noise?'

So, was there no noise at all?

Client: There was...!

Therapist: Weren't they able to hear it?

Client: ???

Therapist: No!!! That sound was no more disturbing to them. Just because of the process of Habituation!

4.4 Houses near railway lines

Therapist: Now for this example, you yourself will be able to relate the process of habituation. You might have seen some houses constructed around the railway tracks, these days not only slum areas but even posh colonies are being built around it. Just think about it, during night hours whenever some train must pass through those tracks, how much vibration, and noise would it cause; Right?

Client: Yes. Truly. And they sleep calmly!

Session-5: Understanding the Process of Ignoring the Thoughts
(Conscious efforts to ignore the disturbing thoughts)

5.1 Angel's Voice vs Devil's Voice

Therapist: In every human being, there exist two types of voices- the Angel's Voice and the Devil's Voice

In your case, there is a thought named OCD. Whenever we commit something wrong, as an act, a voice appears from within us, indicating that it is unethical. This is known as the 'angel's voice'. But despite that, taking a rational decision whether to do it or not would depend on whom?

Client: Me.

Therapist: Even if you try to commit that same act 5 more times, the voice would indicate its unethicity for those 5 times, right away. But the choice would always remain in your hands whether to comply with it or not. Similarly, a contrary voice also comes up in our head, which directs us towards the wrongdoing itself, this is the 'devil's voice'. Yet again to abide by it or not would be in our hands only. This is because I don't belong to my thoughts but my thoughts do belong to me. I am the master of my mind; the mind is not my master. These thoughts are just like voices in our heads, they don't have the limbs that can forcefully make us do things. These voices can only speak.

For example, during the winter season, you are fast asleep early in the morning, around say 5 or 5:30 am. You are very cosy and comfortable in your bed, but you have to wake up for an urgent piece of work. But when you try to get out of your warm and cosy blanket, you tend to hear a voice, which goes like '*not yet*' or if u try to struggle that you have to go, it says '*5 minutes more*', as you keep on struggling, it continues like '*nothing would happen, the entire world doesn't revolve around you, nothing would go wrong even if you sleep for 10 minutes more*'. Hence similar voices keep going in your head. Now suppose you really have to go for say an exam or you have a flight/train to catch, where you have to reach on time, no matter, what would you do?

Client: I will get up somehow.

Therapist: Correct. You remove the blanket right away and get out of bed, no matter how many voices keep running through your head. Hence this states that the thoughts are nothing but just the voices in our heads. Though these 'voices' could be pretty convincing whether to listen to them or not is always going to be your choice. Always remember you don't do a thing because your thoughts have asked you to because you are in total control of yourself.

5.2 Black Dog vs White Dog

Therapist: Suppose you have two pet dogs at home which are white and black in color; individually, you have to feed 50 gms each, of the packaged feed daily. Instead, you feed the white dog 75 gms and the black one the remaining 25 gm, daily. Hence what would happen after a few days? The white dog would become bulky and the black one would become malnutrition and vice versa.

Imagining these dogs with your ‘angel's voice’ and ‘devil's voice’ now. The voice that received the most attention would eventually surpass the other, and only that voice would be able to have the greatest impact on your nature. Therefore, it follows that the more attention we pay to the negative thoughts that constitute our ‘devil's voice’, the more control and influence they will have over us. Therefore, it is important to understand that we can effectively manage our current situation once we are aware that we can reduce the power of our dysfunctional thoughts by not giving them any attention.

5.3 Injury Pain vs Treatment Pain

Therapist: The concept of ‘pain’ can be understood in two ways. One is the ‘pain’ occurring due to an injury, another is the ‘pain’ occurring for its treatment. I always ask you to ‘tolerate’ your anxiety, despite that being difficult, but if you are familiar that it is a part of your treatment then you won’t get that distressed while bearing it. Here I am just asking you to bear the ‘treatment’ pain. I have a metaphor to make you understand it better.

Suppose a person gets his arm fractured, where his bones get dislocated; Now just imagine how painful would that be. It gets so unbearable for the person that he runs to the nearby hospital ‘emergency’ and asks the doctor to treat it immediately. The orthopedician reaches for his arm in order to relocate it so that he can put a plaster; as soon as he stretches it, the person starts to scream “*Leave me, please, it hurts*”, with pain. The doctor leaves it and yet again the person starts to cry that “*it hurts a lot, do something, save me*”, to which the doctor replies, “*For that, I need to stretch your arm; please cooperate; it will be done gently and quickly, as this is the first step in repairing it so that I can apply the plaster*”. When the doctor held his arm again the person started to cry in pain. The doctor then has to leave it again.

Now here try to understand one thing, the pain that the person is bearing is from his injury, but the pain that the doctor is causing him is for his treatment. The injury pain continues for a while, but the treatment pain is there for a brief time. Therefore, when I ask you to bear the inconvenience caused by anxiety, you must take it as part of your treatment process, as the ‘treatment’ pain.

Session-6: Understanding the Process of Neuroplasticity

(Wiring and Rewiring of Neural Networks)

6.1 Neuronal Speed

Therapist: Suppose I switched on an electric point, as soon as I press it, this tube light gets lit immediately. Did this process take any time? Did the current get lost anywhere from its circuit?

Client: No.

Therapist: Correct. It is an immediate, instant process and would have occurred similarly even if the tube was placed at some distance of ten feet or more. This process is so instantaneous in nature. Now each switch is installed for a particular tube, it isn't like by pressing one switch, a different tube gets lit every time. Each circuit works automatically. Similarly, circuits are built inside our brains and body for the accurate transfer of information. Whenever we receive an auditory stimulus, for example, it gets converted into an electric signal which is then captured by the neuron. Which is how the message travels through the 2nd, 3rd, 4th, ... 100th ... or the nth number of neurons and reaches that particular part of the brain where audio signals are interpreted. Therefore no matter how many thousands and millions of neurons the message has to travel across, it always manages to reach its destination within no time, inside our brain.

6.2 Learning a Keyboard

Therapist: I hope you know how to type on a computer.

So, here I am opening a Word file for you. Suppose I have to write my name and I don't know typing much, so how would I write it? By typing one letter at a time (while looking for it over the keyboard); if I know a little better about typing, I would be able to type faster (*demonstrate it with an example*) and what if someone knows typing pretty well? You might have observed that they don't even need to look at the keyboard while doing it. They just keep looking at the screen, while their fingers keep running over the keyboard. Now I would like you to type a word over the computer (*hand over the laptop to the client with an open word file and make them type their name*).

So, I have observed that you didn't have any difficulty in finding the letters while typing those. Now a keyboard is basically designed in three rows where all the letters are placed (*draw the three rows in a box on their provided sheet of paper to illustrate the keyboard's design*).

Now you have to locate all the letters in the illustration of the keyboard, of your name, that which letter would be situated where on an actual keyboard. Now let's see how accurately you have managed to place them.

(*Note to Therapists - Circle the errors made by the client as compared to the actual keyboard and discuss them*).

You must understand that if you were unaware of the correct placement of a letter on a keyboard, how were you able to type it so quickly on the computer? You took a long time to recall and write the letters, and you made a lot of mistakes. So how come you were able to type it correctly but made mistakes when writing it down on paper?

6.3 Synaptic Pruning, the same as the trimming of hair or plants

Therapist: You must have had your hair trimmed whenever you get a haircut. You don't actually get it cut but rather trimmed to make it even. Similarly, a gardener will cut the extended branches of plants to make them even, which is known as 'pruning' in technical terms, i.e., shaping or shedding those extra uneven leaves and stems.

Similarly, synaptic pruning refers to the process of 'pruning' within our brain, i.e. the removal of unnecessary neural connections.

6.4 Neural Pathways Similar to the Field Pathways

Therapist: Suppose there is a park right in front of your house and people mostly cross that park diagonally through its center, thus creating a rough path in between the park similar to an unconstructed road where the grass has subsided and the ground has become visible.

It is called a 'Field Pathway' (*Pagdandi, in Hindi*). Now you suddenly realise that this footpath obstructs the pleasant view of the park and you decide to remove it. So, what would you do?

Client: XYZ

Therapist: You must obstruct the path. The grass has a natural tendency to grow back over the ground that will not be used; thus, we would have to do something to prevent people from using that path. As a result, the path would eventually disappear as per the principle of neuroplasticity: 'Use it or lose it'.

We now know how to break it, just like we know how to break an old neural circuit in our brain that was made by repeating the same behavior. Therefore, I said, "Not to think the thought, nor to stop it, but simply ignore it by not giving it any importance, like not walking over that path".

We make a new route by stringing some ropes for guidance. So now, when a person would cross that new route again and again, a new pathway would get created, similar to the creation of a new circuit, on the second principle of neuroplasticity: 'Neurons that fire together, wire together'.

Now there are two things-

Tell me if you don't use that path for three, four, or five days, will it vanish?

Client: No.

Therapist: Exactly, because ignoring obsessive thoughts in OCD for a few days will not make them go away. It will most likely take 30, 40, or even more days to begin to fade. But what do most people do?

"I tried this for a week, but the root is still very much there", people complain.

So, my response to them is 'Knowledge is Confidence,' which means that I am aware that even if I start ignoring and stop giving importance to irrational thoughts, I will still feel uncomfortable. Because that route has not yet been engulfed. In order for it to eventually enclose, I must cease my compulsive acts, no matter how inconvenient or how long it would take to disappear. One should not lose hope after only a few days because this process may take a bit longer to show results.

It was obvious that the grass along the newly desired route would be wet or slippery, making it difficult for people to cross it at first. However, if people continued to move through the wet, slippery grass, meaning that they did not stop using it, this would eventually result in the creation of a new footpath. Isn't it?

Whenever we say "tolerate your anxiety," according to the "anxiety curve," i.e., keep moving over the wet, slippery route, there would be a hassle, but according to the "Knowledge is Confidence," though it would be challenging for a few weeks, there is no need to get scared and keep moving. It is obvious that continuous usage of this path would result in the creation of a new circuit. Now that we are discussing OCD, we have a complete understanding of the idea that these thoughts are just that—thoughts—and that we can begin ignoring them.

7.1 The Power of Relabeling

Picture yourself as a blank canvas, where different labels can be pasted. In the past, you might have unknowingly stuck the label "it's me" on yourself, believing you were the center of your obsessive thoughts. However, with the power of relabeling, you can peel off that old label and replace it with a new one that reads "it's OCD." By doing so, you free yourself from the burden of false responsibility, understanding that these thoughts are not a true reflection of you. This simple act of relabeling empowers you to separate yourself from OCD's grip and reclaim your sense of self.

7.2 Reattribute: Shift the Blame

Imagine a scenario where you are burdened with guilt, believing that every unpleasant thought originates from within you, causing distress and restlessness. You carry the weight of responsibility, assuming that "My Thoughts" are the culprit behind it all. But what if we could shift this blame to something else, something beyond our control, like a "Chemical Imbalance" in the brain?

In the journey of reattribution, you learn to think differently, realizing that the true cause of your distress lies not within yourself but in the delicate balance of chemicals in your brain. By embracing this new perspective, you free yourself from the burden of self-blame and find relief from the constant guilt and stress.

Just as lifting a heavy load off your shoulders, reattribution brings calmness, peace, and cheerfulness. You understand that the source of your negative thoughts is not you but an intricate interplay of neurotransmitters in your brain.

No longer entangled in the web of self-blame, you now have the power to embrace a new perspective. By reattributing the cause, you liberate yourself from the shackles of guilt, irritation, and restlessness. So let the words echo in your mind: "It's not me, it's the Chemical Imbalance." With this shift in perception, you pave the way for inner peace and the freedom to reclaim control over your thoughts and emotions.

7.3 Fifty Rupee Note

Imagine holding two fifty-rupee notes in your hand - one old and worn, and the other fresh and crisp. Despite their appearance, both notes are worth the same value. Now, let's draw a parallel to how our minds sometimes distort the worth of our thoughts and actions in the grip of OCD.

An OCD-affected brain loses its ability to make accurate judgments. It convinces us that touching something once is not enough and compels us to wash our hands repeatedly as if each touch were a costly mistake. Our minds create distortions, magnifying trivial concerns and underestimating our ability to manage them.

In these moments, we must pause and re-value the situation. Just like we recognize the equal worth of both fifty-rupee notes, we need to regain mental control and see the reality of the situation. By doing so, we can normalize our response, choosing to ignore the intrusive thoughts that arise.

Re-valuing is about recognizing that your thoughts, though they may feel distressing, do not define your true worth. You have the power to see past the distortions and realize that you are not defined by these thoughts. By re-evaluating the significance of the thoughts and choosing not to engage with them, you regain control and reclaim your sense of self.

So, the next time your mind attempts to magnify the value of obsessive thoughts, remember the fifty-rupee notes. Re-value the situation, embrace your true worth, and free yourself from the chains of OCD's distortions. You hold the key to reclaiming your mental clarity and finding peace within.

7.4 Mastering the Art of Refocusing

Imagine your focus like a spotlight on a colorful poster hanging on the wall. Now, I ask you to shift your focus to the door. See how you can effortlessly move your attention from one point to another? This ability is the essence of "Re-focus" when dealing with troubling thoughts.

Like a string of unruly thoughts, sometimes unsettling notions persist. Instead of dwelling on them, consider them as fleeting clouds passing through the vast sky of your mind. Resist the urge to grant them significance or power. Instead, gracefully rise from your seat and immerse yourself in some purposeful activity, diverting your attention elsewhere. Allow your thoughts to flow while you continue with your tasks.

The key is not to stop your thoughts but to redirect them. Think of these intrusive thoughts like uninvited guests at a party. Politely acknowledge their presence, but don't let them take over. Redirect your attention to more important matters and let unimportant thoughts fade away.

By mastering the art of "Re-focus," you gain control over your mind, leading to greater clarity and inner peace. Just like shifting your focus from the poster to the door, you can navigate through challenges and find peace amidst OCD's struggles.

Session-8: Preventing Relapse

8.1 Fake it, till you Make it

The famous saying "Fake it till you make it" emphasizes the powerful connection between our actions and emotions. When we engage in laughter, our facial muscles move, and a sense of happiness emanates from within. This laughter triggers the activation of certain glands, leading to the release of endorphins, the happy hormones that naturally uplift our mood. Remarkably, our brain doesn't differentiate between genuine and fake laughter; it responds equally by releasing endorphins upon receiving the laughter signals. Thus, even if we engage in mock or fake laughter, our brain perceives it as real and promptly releases endorphins, promoting feelings of happiness and well-being. This intriguing phenomenon highlights the potential of utilizing laughter as a tool to enhance our emotional state, reminding us that sometimes a little pretence can lead to genuine happiness.

8.2 Exercise: A Pathway to Happiness, Energy, and Total Well-being

Think of exercise as your body's happy pill, that sets your spirits soaring. When you move and groove, your body produces these incredible chemicals called endorphins, which are like little mood boosters. They work like magic to balance out stress hormones and keep you feeling healthy, happy, and full of life throughout the day.

Now, have you ever noticed that when you exercise in the morning, you feel so much better throughout the day? It's like starting your day with a burst of positive energy. That's because exercising early releases a flood of endorphins, putting a big smile on your face and making you feel fantastic. It's like having a superpower that keeps you active and enthusiastic from morning till night.

On the other hand, if you exercise at night, it's like having a dance party right before bedtime. Your mind gets all pumped up, and it can be tough to wind down for a good night's sleep. That's why it's best to have your exercise schedule in the morning, so you have a whole day to enjoy the positive vibes.

So, let exercise be your daily dose of happiness and energy. Whether it's a morning jog, a fun dance session, or a quick workout routine, let those endorphins work their magic and keep you feeling awesome all day long, and healthy forever!

8.3 The Attitude of Gratitude

In the fast-paced hustle and bustle of our daily lives, it's easy to get caught up in the never-ending race for more - more success, more possessions, more accomplishments. We often forget to pause and reflect on the abundance of blessings we already have. We tend to take them for

granted, always seeking the next big thing. This constant longing and complaining create a subtle sense of lack and insufficiency in our minds.

Our unconscious mind plays a significant role in shaping our perceptions and emotions. When we repeatedly focus on what we don't have or what's lacking, it reinforces the belief that we are somehow inadequate or disadvantaged. This self-perception can lead to a cascade of negative emotions like sadness, and stress, and even can cause physical or psychological disorders.

However, there is a powerful antidote to break free from this cycle of discontent - *the attitude of gratitude*. It's about deliberately shifting our focus from what's missing to appreciating and being thankful for what we already possess. Gratitude helps us reframe our thoughts and emotions, guiding us towards a more positive outlook on life. Embracing gratitude doesn't mean we stop aspiring for growth and improvement. It's about acknowledging our current blessings while pursuing our dreams. Gratitude fuels a sense of contentment and fulfilment, making us realize that we are already blessed in so many ways. This newfound sense of abundance leads to a deeper sense of happiness and inner peace.

Moreover, research has shown that practicing gratitude has numerous benefits for our health and well-being. It boosts our immune system, reduces stress levels, and improves sleep quality. When we are grateful, our brains release neurotransmitters like dopamine and serotonin, often referred to as "happy hormones," which uplift our mood and contribute to a positive mental state.

So, let's pause and take a moment to appreciate the simple joys and blessings in our lives. By cultivating an attitude of gratitude, we can transform our lives, nurture our mental and emotional well-being, and experience a profound shift towards happiness. and fulfilment.