

**AWARENESS, FACTORS INFLUENCING THE CHOICE  
AND TREATMENT SATISFACTION OF PATIENTS IN  
PUNJAB TOWARDS DIFFERENT SYSTEM OF MEDICINE**

**A THESIS**

**Submitted in partial fulfillment of the requirements for the  
award of the degree of**

**DOCTOR OF PHILOSOPHY  
in  
Management (Marketing)**

**By**

**Sorabh Lakhanpal  
(41600311)**

**Supervised By**

***Dr Pavitar Parkash Singh***

**Co-Supervised by**

***Dr Panagiotis Rentzelas***



**LOVELY PROFESSIONAL UNIVERSITY  
PUNJAB  
2020**

## DECLARATION

I, **Sorabh Lakhnupal**, do hereby declare that the thesis entitled “AWARENESS, FACTORS INFLUENCING THE CHOICE AND TREATMENT SATISFACTION OF PATIENTS IN PUNJAB TOWARDS DIFFERENT SYSTEMS OF MEDICINE” is a record of bonafied research work conducted by me under the guidance of **Dr Pavitar Parkash Singh**, Professor, Mittal School of Business, LPU.

I also declare that this report has not been submitted to any other university or institution for the award of any degree, diploma, associateship or other similar title.



**Sorabh Lakhnupal**

Place : Phagwara (Pb)

Dated : 01-06-2020

## CERTIFICATE

I certify that **Sorabh Lakhnpal** has prepared his thesis entitled “**AWARENESS, FACTORS INFLUENCING THE CHOICE AND TREATMENT SATISFACTION OF PATIENTS IN PUNJAB TOWARDS DIFFERENT SYSTEMS OF MEDICINE**”, for the award of PhD degree of the Lovely Professional University, under my guidance. He has carried out the work at the Department of Management, Lovely Professional University.



**Dr. Pavitar Parkash Singh**  
Professor, Mittal School of Business  
Lovely Professional University  
Jalandhar-Delhi, G.T. Road (NH-1)  
Phagwara, Punjab (INDIA) 144411

Date: 01-06-2020

## ABSTRACT

Today, the service world is inclined to invest in efficacy. When most of the patients are focused on the allopathic system of medicine, Ayurveda, Yoga, Unani, Siddha, Homeopathy (AYUSH), and alternative healthcare systems are becoming the best choice for those who try and find them effective. There are many factors that people consider before deciding on choosing a system of medicine either for preventive or curative health needs. Moreover, “satisfaction”, a term that has several published research papers concerning healthcare management, has also being considered to be important for advancement in system of medicine. Satisfaction study in different systems of medicine is of utmost importance nowadays in the context of healthcare.

There is a dire need to delve upon the effectiveness of different systems of medicine to cure different types of ailments. Awareness regarding diverse systems of medicine and satisfaction among masses for the same is to be analyzed. So, the nature of the study makes it vital to explore the patient’s view regarding the awareness, influential factors to make a choice, and satisfaction from a particular form of medicine system. The chosen systems of medicine include Allopathy, AYUSH, and Alternative medicine.

Measuring patients’ awareness, satisfaction, and the factors that influence the choice of treatment are very essential for the people of Punjab. At the same time identifying and acknowledging the choice of the medical system of treatment by this population is most significant to the Healthcare Industry of the Punjab.

The results from this study will help managers, administrators, and healthcare service owners in the Punjab to develop more adaptable and suitable policies to easily integrate and to generate quality healthcare among the different systems of medicine. Moreover, because of the lack of research conducted in this field within the Punjab, this study aims to make some significant contributions that will go a long way towards improving the quality of healthcare and patient satisfaction thus improving not only loyalty but also economic growth of the people in this region.

Keeping in view the scope of study, objectives have been framed which would help in giving a clear picture of patient preferences for different systems of medicine in the region of the Punjab. The first objective is to assess awareness among respondents regarding different systems of medicine for healthcare. The second objective is to classify the respondents into different segments based on their choices for different systems of medicine. The third objective is to identify the factors that influence patients' choices for selecting a system of medicine. The fourth objective is to study the relative influence of factors affecting the choice of treatment among different systems of medicine and the fifth objective is to study the treatment satisfaction of respondents with different systems of medicine.

The present study is a cross-sectional study that analyzes data collected from a population, or a representative subset, at a specific point in time. It started with exploratory qualitative research to find out what factors are influential for the choice of a particular system of medicine and assess the satisfaction level with different systems of medicine. It was followed by an extensive quantitative study. For the quantitative study, a descriptive research design was selected and a total of 496 respondents who experienced healthcare service in any healthcare industry within the Punjab and equal or above 18 years of age were included. For the identification of samples from the population under study, multi-stage quota sampling was used, which is a non-probabilistic sampling technique. Primary data in the form of the response was obtained from respondents with the help of the widely used and well-known method of survey, utilizing a structured questionnaire.

The healthcare system is differentiated into various indigenous systems including the Ayurveda, Naturopathy, Yoga, Siddha, Unani, Homeopathy which are accepted broadly and practiced parallel to the allopathic system of medicine. Still for effective and strategical planning for different systems of medicine, there is a dire need for information on their existing scenario in the community.

Furthermore, it is perceived that the traditional (AYUSH) and modern based (Allopathy) medicines are not at all mutually exclusive. All are preferred in one or

the other conditions by people of different areas, age groups, religion gender, and educational backgrounds. Moreover, the role of the AYUSH systems of medicine is showing preference and good satisfaction levels in the health scenarios of Punjab.

The people's awareness of health-related information on the internet and online buying behaviour was also explored and analysed. The research highlighted that although online buying of healthcare products is very less in the Punjab, still around one-fourth of respondents are thinking for the same due to reasons like better quality, offers/deals, subsidized price and to avoid the embarrassment of going to a local seller.

The study also concluded that client awareness and preference for a different system of medicine is also related to their local accessibility.

It is also noticed that there is a considerable influence of various types of media about the awareness of the different systems of medicine. Personal media is still the most preferred one.

AYUSH system of medicine is preferred in chronic and common ailments especially related to psychological disorders, digestive system disorders, respiratory and Musculoskeletal system disorders. However, in the overall scenario of medical ailments, Emergency, Surgery, and acute illness allopathy is the most preferred system of medicine. Therefore, tertiary health care hospitals are more with allopathy and hence more awareness in people of Punjab towards the modern system of medicine. Also, due to less awareness and preference towards the Unani and Siddha treatment, they are perceived to be undefined in the future.

As per this study, the choices of the client of health care about a different system of medicine were explored and analysed. It is perceived that various factors tend to characterize the health care client, in addition to the basic parameters of the cost and the quality of medication. They range from a holistic approach, credibility, effectiveness, to being expedient. Unlike in the earlier times, when individuals used information from family and friends along with the judgments of individual doctors, now clients are more aware and particular about the above-mentioned factors also.

The clients are perceived to be desirous for the greater levels of services from the doctors and other choices, which may be due to reasons like advancement in technology and clients having numerous information at their disposal. This leads to the questions in their minds about the choices of drugs, diagnosis, cost of the treatment, and duration of the medication, etc. Thus, this study tried to illustrate the choices, their influence, and factors responsible for selecting a particular system of medicine for healthcare facilities in the Punjab.

Research leads to several dimensions that tend to influence the satisfaction of a client with different systems of medicine. Major dimensions being effectiveness, side effects, convenience of use, and global fulfilment. In this study other than above-stated dimensions, various socio-demographic factors comprising of gender, region, age, religion, and education are also studied for their relation to satisfaction with a different system of medicine.

From the study, it is found that total satisfaction for a particular system of medicine is related to the effectiveness, contemporary, and expedient factors of making a choice.

Conclusively, the study highlighted that the clients were satisfied with the services which were provided through the AYUSH system of medicine. Therefore, different systems of medicine either modern or indigenous should be an integral part of the Punjab Healthcare System.

Henceforth, further conclusions can be made that there is a possibility of the successful integration of modern and indigenous systems of medicine for better awareness, the effectiveness of treatment, and satisfaction among the people towards the Healthcare System of the state of Punjab.

Government, Pharmaceutical companies, and Media can help flourish the different systems of medicine based on research studies for the betterment of human life. Presently, most of the companies and media have shown biased behavior on the marketing of AYUSH and Alternative system of medicine.

The deficiencies existing in the different systems of medicines like the high cost of treatment, suppression of the symptoms without prompting complete healing, side effects, no lifestyle modifications and individualistic approach for diagnosing should be removed, so that patients can be benefited with better cure. More research studies like this, promoting integration of the different system of medicines, should be done.



## ACKNOWLEDGEMENT

This thesis has been completed under the official supervision and able guidance of **Dr Pavitar Parkash Singh**, Professor, Mittal School of Business, LPU. I am extremely grateful to Dr Pavitar Parkash Singh for his continuous encouragement and for many inspiring discussions. I had the privilege to have with him throughout my work. His constructive comments and well-meaning criticism helped to take substantive improvement in the thesis.

I wish to express my earnest thanks to **Dr Sanjay Modi**, Executive Dean, Faculty of Business and Applied Arts, LPU for their valuable advice in deciding the topic of this research work and help given to me from time to time.

I am equally obliged to **Dr Rajesh Verma**, Professor and HOS Mittal School of Business, LPU and **Dr Vishal Sarin**, Professor, Mittal School of Business, LPU who readily cooperated by responding to my queries patiently. Needless to say, this research would have been possible without their cooperation.

My special thanks to my co-supervisor **Dr Panagiotis Rentzelas**, Associate Professor, Birmingham City University, UK for all the literature he provided me to support my research analysis.

I would like to convey my sincere thanks to Lovely Professional University for offering all the necessary support required to concentrate on my research.

I would like to thank all the people who have offered me time and help when I needed, at numerous steps of my research work and thesis compilation.



**Sorabh Lakhnarpal**

Dated: 01-06-2020

# TABLE OF CONTENTS

	PAGE NO.
Title.....	i
Declaration .....	ii
Certificate .....	iii
Abstract.....	iv
Acknowledgement .....	ix
Table of Contents.....	x
List of Tables .....	xvi
List of Figures.....	xx

---

SR. NO.	TITLE	PAGE NO.
<b>1.</b>	<b>CHAPTER – 1 : INTRODUCTION</b>	<b>1-9</b>
1.1	Classification of Different Systems of Medicine	1
1.2	Research Background	2
1.3	Factors Influential in Deciding a System of Medicine	4
1.4	Significance of The Study	5
1.5	Research Questions	8
1.6	Scope of The Study	8
<b>2.</b>	<b>CHAPTER – 2 : LITERATURE REVIEW</b>	<b>10-24</b>
2.1	Genesis of The System of Medicine	10
2.2	Overview of Healthcare Industry	11
2.3	Assessment of Healthcare Environment	13
2.4	General Awareness of Different Systems of Medicine for Healthcare	14
2.5	Consumer Predilections for Medical Treatment	18

---

<b>SR. NO.</b>	<b>TITLE</b>	<b>PAGE NO.</b>
2.6	Use and Satisfaction of Different System of Medicine	19
2.7	Research Gap	22
2.8	Research Hypothesis	23
<b>3.</b>	<b>CHAPTER – 3 : RESEARCH METHODOLOGY</b>	<b>25-35</b>
3.1	Need and Scope of The Study	25
3.2	Aim and Objectives	26
3.3	Research Hypothesis	26
3.4	Research Methodology	27
	3.4.1 Research Approach	28
	3.4.2 Research Design	28
	3.4.3 Data Collection	29
	3.4.4 Sampling Procedure	31
3.5	Data Analysis	33
3.6	Limitations of The Study	35
<b>4.</b>	<b>CHAPTER – 4 : AWARENESS AMONG RESPONDENTS REGARDING DIFFERENT SYSTEMS OF MEDICINE FOR HEALTHCARE</b>	<b>36-70</b>
4.1	Awareness Based on the Fact if Respondent Have Ever Heard, or Experienced Any Systems of Medicine for Prevention, Diagnosis, Treatment of Diseases and Maintenance of Health (Unaided Recall)	37
4.2	Level of Familiarity regarding Different Systems of Medicine	38
4.3	Mean and Standard Deviation of Familiarity about Different Systems of Medicine	41
4.4	Preference of System of Medicine in Various Categories of Medical Conditions	42

SR. NO.	TITLE	PAGE NO.
4.5	Ease of Locational Accessibility to Different Systems of Medicine for Treatment	43
4.6	Mean and Standard Deviation of Accessibility of Different Systems of Medicine	47
4.7	Source of Information about Different Systems of Medicine	48
4.8	Regularity of Internet Use and Search for Health-Related Information Online	50
4.8.1	Online buying behaviour of the respondents in context to healthcare products	51
4.8.2	Influence of various reasons for buying medical/healthcare products online	52
4.9	Opinion about The Effectiveness of Treatment in the Different Systems of Medicine	55
4.10	Preference for Different Systems of Medicine in Mentioned Medical Ailments	58
4.11	Relationship between Convenience of Accessibility and Familiarity for Different Systems of Medicine	65
4.12	Relationship between Opinion about The Effectiveness and Familiarity with Different Systems of Medicine	67
4.13	Relationship between Use of Internet for Health-Related Activities and Familiarity about Different System of Medicine	68
<b>5.</b>	<b>CHAPTER – 5 : INFLUENTIAL FACTORS TO MAKE A CHOICE FOR DIFFERENT STYSTEMS OF MEDICINE</b>	<b>71-108</b>

SR. NO.	TITLE	PAGE NO.
5.1	System of Medicine Preferred for the Most Recent Treatment	72
5.2	Demographic Profile of Respondents	73
5.3	Classification of the Respondents into Different Segments based on their Choices for Different Systems of Medicine	88
5.4	Factors that Influence Patients' Choice for Selecting System of Medicine	92
5.5	Relative Influence of the Factors Affecting the Choice of Treatment among Different Systems of Medicine	101
<b>6.</b>	<b>CHAPTER – 6 : TREATMENT SATISFACTION WITH DIFFERENT SYSTEMS OF MEDICINE</b>	<b>109-125</b>
6.1	Significance of Difference in Treatment Satisfaction in Different Systems of Medicine on the Basis of Age Groups	109
6.2	Significance of Difference in Treatment Satisfaction in Different Systems of Medicine on the Basis of Gender	110
6.3	Significance of Difference in Treatment Satisfaction in Different Systems of Medicine on the Basis of Religion	111
6.4	Significance of Difference in Treatment Satisfaction in Different Systems of Medicine on the Basis of Place of Residence	111
6.5	Significance of Difference in Treatment Satisfaction in Different Systems of Medicine on the Basis of Occupation	112

SR. NO.	TITLE	PAGE NO.
6.6	Significance of Difference in Treatment Satisfaction in Different Systems of Medicine on the Basis of Marital Status	113
6.7	Significance of Difference in Treatment Satisfaction in Different Systems of Medicine on the Basis of Type of Family	113
6.8	Significance of Difference in Treatment Satisfaction in Different Systems of Medicine on the Basis of Education	114
6.9	Significance of Difference in Treatment Satisfaction in Different Systems of Medicine on the Basis of Medical Insurance	115
6.10	Significance of Difference in Treatment Satisfaction in Different Systems of Medicine on the Basis of Region	116
6.11	Significance of Difference in Dimensions of Satisfaction at Different Systems of Medicine	116
6.12	Relationship of Influential Factors to Make a Choice with Dimensions of Satisfaction for the Different Systems of Medicine	118
6.13	Appraising Preferred System of Medicine with Regard to Different Dimensions of the Satisfaction	123
<b>7.</b>	<b>CHAPTER – 7 : FINDINGS, SUGGESTIONS AND CONCLUSION</b>	<b>126-139</b>
7.1	Major Findings	126
7.1.1	Awareness among respondents regarding different systems of medicine for healthcare	126

<b>SR. NO.</b>	<b>TITLE</b>	<b>PAGE NO.</b>
7.1.2	Different segments of patients based on their choices for different systems of medicine.	128
7.1.3	Factors influencing patients' choice for selecting system of medicine	130
7.1.4	Association between factors affecting choice of treatment and different systems of medicine	131
7.1.5	Treatment satisfaction with different systems of medicine	131
7.2	Suggestions	133
7.3	Conclusions	137
7.4	Scope for Future Research	139
<b>8.</b>	<b>REFERENCES</b>	<b>140-150</b>
<b>9.</b>	<b>APPENDICES</b>	
	Appendix 1 - Research Tool	
	Appendix 2 - Construction and Validation of System of Medicine Choice Scale in The Indian Context	

## LIST OF TABLES

TABLE NO.	TITLE	PAGE NO.
3.1	Description of Sample Collection	33
4.1	The awareness of respondents regarding different systems of medicine of health care	37
4.2	The level of familiarity of respondents about different systems of medicine	39
4.3	Mean and Standard Deviation of Familiarity about different systems of Medicine	41
4.4	Preference of respondents in various categories of medical conditions	42
4.5	Ease of locational accessibility to different systems of medicine for treatment	44
4.6	Mean and Standard Deviation of Location accessibility of different systems of Medicine	47
4.7	The source of information about different systems of medicine	48
4.8	The use of internet by the respondents for general purpose and for health-related activities	50
4.9	The use of internet for ordering healthcare products from internet.	51
4.10	The influence of various reasons on buying medical/healthcare products online	53
4.11	The opinion about the effectiveness of treatment in the different systems of medicine	56
4.12	The preference for different Systems of medicine in various medical ailments	58
4.13	Relationship between accessibility and familiarity for different systems of medicine	65



TABLE NO.	TITLE	PAGE NO.
4.14	Relationship between opinion about the effectiveness and Familiarity with different systems of medicine	67
4.15	Correlation coefficients between use of internet for health-related activities and Familiarity about different system of medicine	68
5.1	System of medicine preferred for the most recent treatment	72
5.2	Demographic Profile – Age	73
5.3	Demographic Profile – Gender	74
5.4	Demographic Profile – Religion	75
5.5	Demographic Profile – Place of Residence	76
5.6	Demographic Profile – Geographical Region	77
5.7	Demographic Profile – District of residence	78
5.8	Demographic Profile – Occupation	79
5.9	Demographic Profile – Marital Status	80
5.10	Demographic Profile – Type of Family	81
5.11	Demographic Profile – Number of dependent family members	82
5.12	Demographic Profile – Children	83
5.13	Demographic Profile – Income Detail	84
5.14	Demographic Profile – Education Level	85
5.15	Demographic Profile – Medical Insurance	86
5.16	Demographic Profile – Average annual consultation with doctor in last one year	87
5.17	ANOVA Results	88
5.18	Number of Cases in each Cluster	89

TABLE NO.	TITLE	PAGE NO.
5.19	Individual Cluster Attributes	90
5.20	Relative Significance of Each Factor in the Choice of the Preferred system of Medicine	92
5.21	KMO and Bartlett's Test Results	94
5.22	Total Variance Explained	95
5.23	Rotated Component Matrix	98
5.24	Communalities	100
5.25	Wilks' Lambda for Discriminant analysis	102
5.26	Eigen Values for Discriminant analysis	102
5.27	Test of Equality of Group Means	102
5.28	Structure Matrix	103
5.29	Canonical Discriminant Function Coefficients	104
5.30	Function at Group Centroids	106
5.31	Classification Results	107
6.1	Significance of difference in treatment Satisfaction on the basis of Age Groups	110
6.2	Significance of difference in treatment Satisfaction in different systems of medicine on the basis of Gender	110
6.3	Significance of difference in treatment Satisfaction in different systems of medicine on the basis of Religion	111
6.4	Significance of difference in treatment Satisfaction in different systems of medicine on the basis of place of residence	112
6.5	Significance of difference in treatment Satisfaction in different systems of medicine on the basis of occupation	112

TABLE NO.	TITLE	PAGE NO.
6.6	Significance of difference in treatment Satisfaction in different systems of medicine on the basis of marital status	113
6.7	Significance of difference in treatment Satisfaction in different systems of medicine on the basis of type of family	113
6.8	Significance of difference in treatment Satisfaction in different systems of medicine on the basis of Education	114
6.9	Significance of difference in treatment Satisfaction in different systems of medicine on the basis of medical insurance	115
6.10	Significance of difference in treatment Satisfaction in different systems of medicine on the basis of region	116
6.11	Significance of difference in dimensions of satisfaction at different systems of medicine	117
6.12	Correlation between Influential Factors to make a choice with dimensions of Satisfaction for the different systems of medicine	118
6.13	Mean scores of different dimensions of satisfaction for various systems of medicine	123

## LIST OF FIGURES

FIGURE NO.	TITLE	PAGE NO.
4.1	The level of awareness of respondents regarding different systems of medicine of health care	38
4.2	The level of familiarity of respondents about different systems of medicine	40
4.3	Mean and Standard Deviation of Familiarity about different systems of Medicine	42
4.4	Shows ease of locational accessibility to different systems of medicine for treatment	46
4.5	Mean and Standard Deviation of Location accessibility of different systems of Medicine	47
4.6	The source of information about different systems of medicine	49
4.7	The use of internet by the respondents for general purpose and for health-related activities	51
4.8	The use of internet for ordering healthcare products from internet	52
4.9	The influence of various reasons on buying medical/healthcare products online	55
4.10	The opinion about the effectiveness of treatment in the different systems of medicine	57
4.11	The preference for different Systems of medicine in various medical ailments	64
4.12	Relationship between accessibility for different systems of medicine and familiarity	66
4.13	Relationship between opinion about the effectiveness with different systems of medicine and Familiarity	68

FIGURE NO.	TITLE	PAGE NO.
4.14	Correlation coefficients between use of internet for health-related activities Familiarity about different system of medicine	70
5.1	System of medicine preferred for the most recent treatment	72
5.2	Demographic Profile – Age	73
5.3	Demographic Profile – Gender	74
5.4	Demographic Profile – Religion	75
5.5	Demographic Profile – Place of Residence	76
5.6	Demographic Profile – Geographical Region	77
5.7	Demographic Profile – Occupation	79
5.8	Demographic Profile – Marital Status	80
5.9	Demographic Profile – Type of Family	81
5.10	Demographic Profile – Number of dependent family members	82
5.11	Demographic Profile – Children	83
5.12	Demographic Profile – Income Detail	84
5.13	Demographic Profile – Education Level	85
5.14	Demographic Profile – Medical Insurance	86
5.15	Demographic Profile – Average annual consultation with doctor in last one year	87
5.16	Factors depicted in the scree plot	97
5.17	Canonical Discriminant Function for System of Medicine	108
6.1	Relationship of Influential Factors to make a choice with dimensions of Satisfaction for the different systems of medicine	122

## CHAPTER – 1

# INTRODUCTION

Medicine industry has grown and magnificently evolved over the decades. It is categorized and counted as one of the most booming industries of the service sector in India now. Customers, patients and mundane miscellany people have different variegated choices regarding what to choose and how to choose. People mainly look for the best options that can suit their peculiar needs and demands. Similarly, there are diverse factors that patients weigh in before deciding on choosing a system of medicine. These factors will be identified to a certain degree in this study. The status of health is considered to be compromised when a person is contracted with a particular disease. Every disease has different symptoms and characteristics as per which they are further classified into various categories. Some of them are: acute, chronic, genital, communicable and noncommunicable, hereditary and lifestyle disease. They all require medical intervention, so it is essential to understand the system of medicine that best suits the intended illness. The present health care facilities are subjected to many systems of medicine.

### 1.1 CLASSIFICATION OF DIFFERENT SYSTEMS OF MEDICINE

- 1) Allopathic medicine: This system of medicine implies healing through various synthesized medications and prescribed drugs. The results of this system are considered to be the fastest of all other systems.
- 2) Ayurveda: These systems have a therapeutic outlook that includes diet, herbs, metals, minerals, precious stones and their combinations that mainly caters to nondrug therapies. About 70 per cent of people in India follow this category of medicine because of its natural disposition and no side-effects properties.
- 3) Siddha: Siddha system of medicine is prevalent in the southern part of India. It is accredited as a perfect form of medication against mortality. The fundamental premise of this medicine is that it believes in mercurial drugs for rejuvenating treatments and intense yogic practices to reinforce health.

- 4) Unani: It is a Perso-Arabic traditional medicine. The basics of this type of medicine lie on scientific principles as well as holistic concepts that incorporate healing.
- 5) Homoeopathy: It is an age-old adapted remedy wherein a person uses the organic-based substance for self-healing of the body.
- 6) Yoga and naturopathy: Yoga and naturopathy are connoted as a lifestyle-related disease intervention. It deals with the yoga and resorts to natural remedies for well being of the body.
- 7) Acupuncture: Acupuncture treatment is stipulated by inserting thin needles through the skin at specific points on the body. The stimulant points are probed with needles to increase blood flow. It helps to trigger the activity of the body's natural painkillers.
- 8) Chiropractic: Manipulation to restore mobility of joints and tissues is the underlying principle of chiropractic. It is gaining momentum in people with arthritis and lifestyle issues.
- 9) Reiki: Reiki is an energy induced healing system of medicine. Though it has ancient roots, it is occurring in the field of nursing.

## **1.2 RESEARCH BACKGROUND**

Medicine industry in Punjab region has witnessed a visible bloom. Keeping in mind the increasing competitive strength, scholars have asserted that the mere launch of a unique product is not enough. Experience of customers, their choices, needs and demands must be highly valued. As per Wolf and Jason (2014), in order to evaluate healthcare industry, it is important to evaluate their quality, performance and perception among the people irrespective of their origin. In order to improve adherence, improve affordability, increase satisfaction all stake- holders must know the strengths and weakness of the system of medicine prevailing in Punjab.

Generating Awareness and updating technology through mobile apps or websites can also improve adherence, and boost revenues. (Yeboah-Fofie, M. 2017)

Every sector must know the target segment and target measures to improve the standards of healthcare. As per Abbas et al., 2010 the earlier philosophy of “one size fits all” approach is doubtful to work in this current scenario.

Customers are responsive to the rapid surge in health care services because of inadequate health coverage. The government's initiative is focussed on insurance coverage that aims at reducing financial and geographical barriers prevalent in the healthcare sectors. The cost of treatment has huge disparity among the different healthcare service providers. Lot of facilities are provided to a particular segment of people who can spend more. Such practices have created huge disparity among the different segment of the society. It is certainly different for rich middle class and the actually needy people (Chollet, 1996).

According to the critic, the typical day to day audience is aware of the hazardous after-effects that the allopathic and foreign industry generated medicines carry. People have become extra conscious about using international medications instant relief but long-term body damages that cannot be quickly recovered. Though allopathic medicines have immediate relief traits and have seen a significant boost in medicinal research, it has affixed side-effects. Certain people who are allergic to allopathic treatments, such people have to try Ayurveda or homoeopathy or other alternatives which have no side effects (Schempf & Kaufman, 2011).

In spite of being aware of different systems of healthcare and medicine sometimes, resort to self-medication practices. Lack of time, unavailability of doctors, economic reasons, issues of accessibility, and crowded hospitals are the reasons of self-medication among people. (Mishra Divya, 2016)

According to Chatterjee, Biswas & Pancholi (2012), people tend to work according to their own will. They are aware of the fact that without reliable medical assistance, they cannot get effective medicines. People also attempt to self medicate where they tend to make decisions on their own and choose drugs or medications that they are compatible with based on their learning or past experiences.

Ten main principles govern research conducted by Samal & Dehury (2018), attested by Universal Health Coverage (UHC) and proposed by High-Level Expert Group (HLEG). The research studies both system of medicines in comparison with these principles. It also states the points that are not covered within UHC guidelines and



ultimately verifies if AYUSH is a practical approach then allopathy? However, the area of ayurvedic treatment still falls behind because it is not updated as per the current scientific development. The study also suggests the government's role in promoting an efficient system of medicine without being bias on any grounds.

Health care acquiring patients are more conscious than earlier. They demand scientific based, more precise and credible of health care delivery. Clients are always going to benefited from any system of medicine if we develop the criteria to measure their effectiveness in health care delivery.

Although clinical health measures are extremely important, but now the reputation of the doctor, quality of service, cost and client satisfaction are equally important. Health care service provider must know that the patient's contentment in this competitive environment is the major factor to improve their market share. Client satisfaction, along with the healthcare services adds value factor to the treatment and thus helps to achieve better health. This study includes the investigation of satisfaction level of the patients with different systems of medicine of state Punjab. Accessibility of tertiary healthcare services, loss of faith, non-compliance with the treatment were the integral reason that resulted in people's dissatisfaction. Problems such as an improper dispensing system and the gap in communication between patients and doctors are also indispensable in contriving satisfaction among patients (Kumari et al., 2009).

### **1.3 FACTORS INFLUENTIAL IN DECIDING A SYSTEM OF MEDICINE**

People, nowadays, have many choices. The medical arena or to say, the hub of pharmaceuticals has altogether crowded the market with distinctive products and medicines that can be best compared and used as an alternative for the other. Significantly, this has increased the competitive zeal amongst the best of medicine industries and companies. People are fully conscious and informed about this variegated availability of medicines. Several factors influence a patient's choice for selecting a system of medicine and the satisfaction of patients from a different method of medicinal treatments. The reasons that govern their preference may be

several, ranging from economic and social background to lack of reliability in a particular system to other preconceived and inflicted notions.

The relationship between level of awareness, factors influencing the choice for the treatment, and satisfaction are not collectively studied in the region of Punjab. Hence the primary objective of this study to do the same.

#### **1.4 SIGNIFICANCE OF THE STUDY**

AYUSH system of medicine (Ayurveda, Yoga, Unani, Siddha and Homeopathy) and alternative system of medicine are an integral part of our healthcare system and have been around for thousands of years. People of Punjab are taking benefit from all these systems of medicine along with modern system of medicine commonly known as allopathic medicine. In case all the medical practitioners are also aware about the benefits and adverse effects of each system of medicine then they can offer better and more treatment options to their clients.

For example, if some system of medicine is not able to treat particular medical condition effectively then client can be referred to another system of medicine. It can only be likely to happen, if people and medical practitioners are aware that there is a feasible treatment option for the clients. The government of India has acknowledged role of AYUSH system of medicine in providing health care facilities to the people and hence various plans and strategies are developed to strengthen their role and providing formal support to AYUSH system of medicine (Premachandra, M. K. 2011). There are lots of resources, time and cost involved treating the ailments of the people. Hence the most effective, credible, affordable and efficient system of medicine is to be prescribed to the clients.

Indigenous medicines are mostly used by rural people as modern healthcare services were missing in these areas (Kumar et al., 2007). Health services should be equally accessible to all as it is commonly said that living conditions, education and healthcare services are the main determinants of healthy society. The study demands analysis about the equal access of healthcare for indigenous and allopathic system of medicine. There is an underpinning of homeopathy system of medicine, and it is

not only because of India's antiquity, but it also arises due to a considerable scarcity in medicinal services. So it becomes very important to find out the attributes and segments of people towards various systems of medicine. However, research conducted by (Chandra Prakash Kala, 2006), in north Indian village several years ago, found awareness of traditional system of medicine exceeds that of modern medicine. Many of the people have ascertained that even though there are services and facilities available, they are still sceptical about using them due to cultural habits and beliefs about aetiology of the ailment and cure. The present study postulates various hypotheses that arose from the objectives and research gaps. The review partakes in developing a better system of medicine for people based on their varying degree of convenience. As the thesis covers the critical question of awareness, preference and satisfaction of AYUSH and allopathy mode of medicine; the study will prove to be beneficial in bringing an advent change in the medicinal system. The results from this study will help healthcare administrators and medical professionals in Punjab to develop patient friendly policies. These policies will be easy to integrate and generate quality healthcare among a different set of people. The situation in rural health care facilities are deprived of qualified Allopathic doctors than practitioners in AYUSH system of medicine. It is essential to find out the factors while choosing system of medicine so that medical treatment in rural areas can also be improved. According to the census of Indian population in 2011 rural-urban distribution 68.84 per cent and 31.16 per cent respectively. More than 179 million are living in rural areas. Most of the people from rural sectors have negligent economic status, and with the majority of them are involved in manual labour and come from complete destitution. These strategies mandated by the government have proved to be beneficial but still, in rural Punjab people are either self-medicating or prefer to go to AYUSH specialist. Factors like money and reliability are influential in choosing the system of medication in rural India.

In this study, we establish the need to address the stark differences in the availability of different systems of medicine, people's inclination to a particular kind of medication because of their capacity of awareness, and the adherence of treatment. This data will be fruitful to bring about considerable changes in the healthcare facilities —meeting the needs of the majority of the people. The study would also

contain the disparity of big pharmaceutical companies as it would facilitate sales of a particular product in the market. It would take the needs of the people into consideration and then act accordingly to the best of capabilities in providing the most effective remedies. It would also promote homoeopathy which is a homebound system of medicine in international markets as well. The study will also be significant in improving the overall healthcare status of the country. Immediate health care services can be provided to people in dire need in urban as well as rural areas. Proficient pieces of training as per the requirements of the customers and patients can be bestowed upon medicinal practitioners, nurses and other health care professionals. Evaluating patient's awareness, satisfaction and factors that influence the choice of treatment are paradigms considering the surplus population of Punjab. The lack of research in this field proves to be a limiting factor in adequately helping people. There are a lot of demographic variables like gender, locality, and level of education that are necessary to conduct this study. In the past years, there were several initiatives were taken by government like Ayushman Bharat programme, National Health Protection Scheme (NHPS) and the establishment of healthcare infrastructure including Health and Wellness Centres. The primary aim is to provide the vulnerable sections of the population access to free diagnostic services and hospital treatment. This kind of help from the government is only possible if a proper survey is conducted on the patients.

The patients will feel a sense of reliability through this study, and it will contribute significantly to the health sector. Doctors, nurses and medical staff will be more responsive in providing top-notch service to their patients. They will be devoted to high standards of diagnosis and treatments — a lot many patients do not consider a particular system of medicine because of its rare accessibility. If the works of this study are put into focus, there will be no such disparity.

The groundwork of satisfaction begins with improving the very basic thing that is physical setting where health care services are provided, like it should involve a pleasant atmosphere, neatness, comfortable wards and beds, approachability, and polite staff. Not only these but all the factors related to satisfaction must be studied for advancements in today's healthcare system.

Another reason for major disparity is surfaced due to the behemoth of pharmaceutical companies and other profit making non-governmental agencies who enjoy a monopoly in the current healthcare scenario. The manufacturers of these companies are has generated disproportionate divide among the different systems of medicine. People are now needed to be made aware of actual scenario related to various aspects of health.

All of these factors are due to in-sufficient research of patients and is a major reason for mis-judgement.

### **1.5 RESEARCH QUESTIONS**

This study will be instrumental in answering questions of immense significance. It gives a precise amount of unsolicited information of the patients based on their 360-degree experiences regarding their contact with healthcare facilities. Issues related to awareness of medicines, accessibility and the source of medium will be examined. All of these minor questions have been amalgamated into four crucial research questions which are stated below:

- 1) Are people aware of different systems of medicine for healthcare?
- 2) In what different segments can the respondents be classified based on their choices for different modes of cure.
- 3) What are the factors that influence patients' decision for selecting a system of medicine?
- 4) Are the patients satisfied with the treatment from a different method of medicine?

The research would thus answer the above questions with a survey-based analyses.

### **1.6 SCOPE OF THE STUDY**

Identifying and acknowledging the choice of system of medicine is governed by awareness, situation and past experience with it. There is a lack of established data through research regarding the awareness of people towards this within Punjab. By understanding the factors important while choosing a system of medicine, this study

will significantly contribute towards improving the healthcare standards, patient experience and thereby boosting the overall growth of people in the region. Evaluating customer satisfaction at every level within any organisation is a very important. Although achieving complete satisfaction is very hard to accomplish but analysing patient satisfaction easily relates to a change in practice to improve the quality of healthcare presently provided. Important information layout can be mapped for future patient satisfaction. It can be fulfilled by orienting strategies and services on similar lines among different systems of medicine.

## CHAPTER – 2

### REVIEW OF LITERATURE

#### 2.1 GENESIS OF THE SYSTEM OF MEDICINE

Two-thirds of the people of the entire world resort to the traditional healthcare system of medicines rather than modern-day placebo. From the above-mentioned reality it can be inferred that the majority of the population self-medicate. According to Eskinazi (1998), complementary and alternative medicine are considered to include a plethora of healthcare services that do not occupy the dominant share of the modern-day healthcare section. This is because alternative category of medication creates multiple challenges for various societal faith and practices (scientific, educational and medical) (Eskinazi, 1998). Hence, it becomes vital to study the origin of all the alternate system of medication available along with allopathy.

Healthcare was an innate concept in India and a similar approach was practised up until 5500 years ago when Indus-Saraswathi civilization took place. Ayurveda, the world's most primate system of medicine was discovered in India in the vedic times. Acharya Charaka was connoted as the father of Medicine, he laid the first foundation of ayurveda in India. Eventually, other forms of healthcare systems like yoga, unani, homoeopathy, reiki, chiro and allopathy intervene.(Gershwin, 2013). The practice of Homeopathy and Naturopathy medicine both started in between 17th and 19th century. Hahnemaan brought up the concept of homeopathy by getting inspired from Cullen's work. Hahnemaan was particularly swayed by the potency of peruvian bark against irregular fever. Hence, the underlying idea of homeopathy is to make use of nature-based products as medicine (Clark, 2011). Naturopathy is based partly on the notion of Homeopathy but in a broader scope involves using of all source of natural elements like sunlight, natural air, water and exercise to improve internal health (Blessing, 2011). Vincet Priessnitz was the founder of hydrotherapeutic institution in Germany he was also attributed as the founder of 'nature cure' applications. However it was not until the year 1868, that Louisa Lust

carried out the modern day naturopathy practices in full swing (Fleming & Gutknecht, 2010).

Reiki has Buddhist's background. It was first founded by Dr. Usui in Japan and since then is considered to have healing capabilities. Based on the primary principle of energy and intuition it is still a way of life for many people in Japan. Yoga originated in the Indus valley in 1500 BC in Southern part of Asia. This system of medication has Aryan and Vedic race connections. Siddha was initiated by ancestral sages of Tamil Nadu as they were believed to possess superhuman qualities. Prolongation of life is the basis of Siddha teachings (Subbarayappa, 1997). The above mentioned alternate system of medication have an intrinsic approach which is common to all three systems.

Acupuncture dates back to 600 BC but iron needles evidence dates back to 500BC. The medication addresses the pathways of the body that will activate energy and release stress (Wolfson, 2003). Chiropractic was a result of an accident that took place in Iowa, USA. Two men accidentally placed vertebra of a janitor by performing spiral manipulation technique. This made researchers study in the respective context and therefore it has emerged as a licensed medical remedy in most states of the USA (Kaptchuk & Eisenberg, 1998).

All of the above-mentioned system of medications can be naturally implemented and does not require any form of chemicals. Allopathy on the other hand, brought up the concept of incorporating chemicals into medicines. Modern medicine is synonymous with Allopathy medication in India, it originated in Calcutta Medical College (CMC). Adoption of various medical interventions and healthcare knowledge inspired by western world commenced in the Southern part of India (Bhattacharya, 2014).

## **2.2 OVERVIEW OF HEALTHCARE INDUSTRY**

India has made gradual but remarkable changes in the health sector since the British Raj. Today, India is populated by over a billion people, states of affairs have changed but the status of medicine still remains latent. (Rein M. G. J. Houben, 2016)



National Health Accounts (NHA), have made statistical data in deriving the total expenditure of healthcare facility in Punjab. As per government reports the total spending for the year 2013-2014 contributed to 1.15 percent of India's GDP. The numbers were very low as compared to other countries like Brazil, Srilanka and Thailand that consist of less than half of the population of India. A pompous change can be executed if state wise allocation of funds are provided. As per the System of Health Accounts (SHA) the funds issued for healthcare in India should follow principles like: easy availability of resources, should induce financial adequacy and prompt service delivery (Bahuguna et al., 2018).

With sufficient funds, India can pave the way for new technologies and better infrastructure. The necessity for strong and reliable infrastructure has become more important than ever. As per a study published by Lyngdoh (2015), it becomes troublesome to avail proper infrastructure in North-East India due to its difficult geographical location. The striking findings of the paper shows that the state of hospitals in Assam has less number of beds than stated by the Human Resource Department of India. Adroit and minimum manpower is also a complementary problem along with scarce infrastructure.

Besides this, healthcare sector in India has also made huge advancements with the help of public hospitals. The government has taken many initiatives which are proving to be very beneficial in spreading basic amenities of healthcare and giving check-ups at minimal cost. Medical tourism, has proven to be the best resource so far. It in-coperates two primary concepts which are healthcare and tourism. Corporate hospitals and doctors charge exuberant costs, with the onset of medical tourism people can get better and faster treatments in free of cost. India hosts 15000 medical tourists every year. These numbers are likely to be increased by 15 percent in the subsequent years (Shankar, 2015).

India has mixed healthcare system wherein both public and private hospitals operate. Private hospitals are the norm of metropolitan cities and only provide secondary and tertiary utilities. In rural India, public hospitals can be easily located. (Vijai Kumar Singh, 2015) Sub-centres are commonly seen in hilly and secluded villages where the

populace is extremely low. It is the point of contact between the community and primary healthcare service in that given area. As the rural part of India are deprived of the modernised technology and medicines, community centres and medical colleges are set up so that everyone can avail basic medical aid if not the updated facilities (Chokshi et al., 2016).

A patient pays heed to several factors before he decides on a particular system of medicine. Lately, people are probing more towards the kind of service they are exposed to. Service delivery plays a crucial role in determining if the patient will choose a particular hospital. Pediatric treatment of Tuberculosis (TB) showed that the mismanagement of the staff resulted in poor outcomes. As the disease is subjected for extensive treatment the staff should be coordinated and at the same page. The paper infers that gaps in service delivery among employees can lead to enhancement of disease (Haarbauer-Krupa et al., 2017).

### **2.3 ASSESSMENT OF HEALTHCARE ENVIRONMENT**

The health sector of India has faced several upheavals but lately the Indian government's plan of assisting all people with timely and effective healthcare services has proven to be influential in corroborating new era in the healthcare industry of India. National Health Policy has made amendments that ensures good and healthy lifestyle for all people to whoever is facing financial hardships. The newly appointed government has brought forward a universal coverage for strengthening people's health. Expectancy of life has touched a 60 percent mark. Sterile birth has been considerably reduced due to availability of high-end medicines. On the same lines new technologies like cloud computing for linking doctors to their patients and disease has been gaining momentum. Clustering of data and efficiently recovering it at the time of need can be imparted by cloud computing (Parekh & Saleena, 2015). Also, Internet of Things (IOT) based applications is researched for use in medicine reminder among patients and can be used for monitoring purposes as well (Zanjali & Talmale, 2016). There still lies a long road ahead for India as there seems to be some consistent challenges which needs to be immediately addressed. They are disparity in rural-urban healthcare facilities, the

high end cost of private sector hospitals.(Connell, 2011) Provisions like community and primary healthcare centres are very important if these challenges are to be tackled (Patel et al., 2015).

#### **2.4 GENERAL AWARENESS AMONG VARIOUS SYSTEMS OF MEDICINE**

In India, the healthcare system is discerned to be very unique as different indigenous systems including the Naturopathy, Yoga, Ayurveda, Siddha, Unani, Homeopathy are accepted broadly and are currently practiced parallel to the allopathic system of medicine (Srikanth et al., 2015). The recent AYUSH systems (Indian systems of medicine) are perceived to have an acceptance for a very long time, majorly including Ayurveda, Yoga, Unani. Siddha and Homeopathy (AYUSH). Among these, Ayurveda is known to be one of the most ancient medical systems. Also, significant efforts have been put in the developing world for the promotion of the Indigenous Systems of Medicine. More specifically, for planning effectively and strategically towards this, there is a dire need for information for the utilization of the indigenous system of medicine by the community.

The most fascinating aspect pertaining to healthcare in India is a pluralistic nature. With the expansion of the newer western conception of medicine, ayurvedic and other such traditional based medicines are still perceived to be used throughout India as a system of primary health care (Valiathan, 2006). More specifically, there has been a push towards the scientific affirmation for the cultural belief in traditional based medicines through the experiments and case studies. Furthermore, it is perceived that the traditional and modern based medicines are not at all mutually exclusive.

For a major part of the health care in the world, the traditional, alternative and complementary systems of medicine have a significant role (Gyasi, 2011). In India, majority of the people belong to a different section of society, specifically in rural areas, resort to the practices of Indian systems of medicine. The Ayurvedic system of medicine is not perceived as a stagnant science. Over time, Ayurveda has shown its interaction with the various medicinal systems from time to time and this has also facilitated the growth.

According to a study manifested by Suganya and Hamsalakshmi (2017), the customer buying behavior of the selected ayurvedic healthcare products was explored and highlighted. The research highlighted that over time the diseases are increasing due to the change in lifestyle. Hence, in order to maintain proper health care, awareness of the different systems of medicine is increasing day by day. Ayurvedic products are asserted to be very safe for the health and thus provides less side effects in comparison to the allopathic medicines. The study concluded that the majority of the customers prefer the products of Ayurved because they do not have chemical products (Suganya and Hamsalakshmi, 2017).

However, there was also a study that discussed the prevailing tenor for Ayurveda. The study was contemplated by Amrutia and Dave (2017). The research employed both qualitative and quantitative design and pored over the perceptions of practitioners. The results from the study highlighted that although there are trust, reliability, and demand for the Ayurveda, however still the most of the patients are only aware of the name of the Ayurveda. People do not have a awareness of Ayurvedic system of medicine. Additionally, the study found that for the Ayurveda treatment, the number of regular patients is more in comparison to the first time users.

According to a study, Hausman, G. J. (1997) the marketing of the Siddha medicines in the selected district of Tamil Nadu was discussed. The researcher initially highlighted the Siddha medicine. The Siddha medicine system is perceived to be quite old in India. Siddhas are described as saintly individuals who tend to achieve healing with the practice of yoga. These medicines are effective in curing a few of the diseases. In the therapy of Siddha, astrology, and incantation forms an integral part. The contemporary 'traditional' system of medicine is acknowledged as a response to the years of government policies establishing educational restrictions and privileges for hereditary and traditional medical practitioners (Hausman, 1997). While M Parthipan, (2011) asserted that about 8000 species of medicine are known to the people of India. It is discerned that the traditional system of medicine including Ayurvedic, Unani, Siddha, Homeopathy and the folklore majorly depends on the higher plants for medicinal uses. In India, the traditionally based system of medicine

contributes to a share of 70% of the pharmaceutical market. While Lakshmanan (2003) examined the marketing potential of plants based medicines.

Unnikrishnan et al. (2007) contemplated in the study that the practitioners of Siddha system of medicine are concerned about some aspects of Siddha by the global-based market. Also, the future of Siddha is perceived to be uncertain and it is believed that soon the practice will be eradicated. There is an increase in the usage of traditional medicines in the form of complementary alternative therapies. Henceforth, there is a possibility that the successful integration of these traditional systems of medicine is needed to be evaluated into the public domain of health care services and its successful integration into the public domain. While as per a study contemplated by Kewlani and Singh (2012) the percentage of individuals relying on ayurvedic medicine is very less and is perceived to be restricted to only 25% of the whole population. Additionally, in this study it is noted that there is no difference between the female and male clients pertaining to their use of Ayurvedic products. With regard to the income, it was revealed that the experience of the utility of the ayurvedic product is independent of the effect of income. Additionally, the preference for the type of therapy highlighted that there is no effect on income or gender. As per Mahesh (2011) there is a considerable influence of marketing pertaining to the sales of ayurvedic system of medicines. Although, majority of the companies have shown negligence on the marketing of ayurvedic drugs.

Pertaining to naturopathy, a study contemplated by Rastogi (2012), naturopathy is a system of medicine including of the traditional healing of the India. Ushapanam and upvas are a few of the techniques which are involved in the naturopathy system of health care. This form is drugless healing has its concepts of health and diseases. Naturopathy is different from others as it heals through five element theory which administrate health.

Method to cure the client is not only through medicines, they lay lot of stress upon exercise, balanced diet, rest and calmness of mind.

According to a study investigated by Jakes (2014), the perceptions and experiences of acupuncture users were explored and highlighted. The study primarily focused on

the New Zealand context and investigated the experiences of the users and their perception pertaining to the therapy and their personal beliefs influencing the stage. Majorly, the use of alternative system of medicine is extensive (Ernst, 2000). There is an increase in the endeavours that are being made for incorporating this system of medicine into conventional healthcare. The use of acupuncture has increased in the western region and hence its safety has also been an issue. Various risk factors by treatment through acupuncture are still prevalent. As any other system of medicine acupuncture is also improving and considered to be safe if practiced through qualified practitioners (Vincent, 2001; Adams et al., 2011). Side effects or adverse reactions have decreased (Melchart et al., 2004) and serious complications originating due to lack of qualification and training has also decreased (Norheim and Fonnebo, 1996 and Norheim, 1996 and Zhang, Shang, Gao, & Ernst, 2010).

The Homeopathic system of medicine was discovered by a German known physician named Dr. Samuel Hahnemann in the 18th Century. Primarily this system is based on the law of similia and other natural laws of healing. More comprehensively, it is based on the principles of therapeutic wherein the medicine is given to the person for treating the disease which can produce the same disease symptoms when given to a healthy human being. These medicines of homeopathy are not perceived to be simple, safe and toxic, however, they are also based upon the scientific principles. In addition to this, this approach of getting cured is not only discerned to be curative in nature but is also preventive and promotive and tends to be based on the rehabilitative aspects of healthcare. As per a study by (Premachandra, M. K. 2011) about 80 countries in the world practice Homeopathy in the form of an independent system of treatment, or as an alternative or complementary system of medicine. While in Asia, homeopathy is perceived to be very famous in regions like India, Sri Lanka, and Pakistan.

In indigenous systems of medicine named as AYUSH system of medicine comprising Ayurveda, Homeopathy, Unani, Siddha, Yoga & Naturopathy,). This system of medicine is broadly accepted in India as well as Punjab and thereby enjoys the government support (Department of AYUSH, 2007). It is expected by the Government that AYUSH plays a vital role in health care.

Over time, homeopathy has shown its effectiveness in various diseases like subclinical hypothyroidism, behavioral problems and learning disabilities of children. With the use of different systems of medicine, Homeopathy has been proved to be helpful and effective in controlling and checking different non-communicable diseases, opportunistic infections of HIV/AIDS, pains of cancer, non-healing ulcers of diabetes, and leprosy. Therefore, it can be given a place in the tertiary health care hospitals with allopathy.

## **2.5 CONSUMER PREDILECTIONS FOR MEDICAL TREATMENT**

As per a research study manifested by Dhopeshwarkar et al. (2012), the preferences of the consumers of the health care pertaining to health were explored and highlighted. Over the year, competition among hospitals has shown an intense expansion. While a significant study by Harris et al. (2003) demonstrated how the patients choose physicians. The study explored and highlighted that the poor health status, high level of service use and strong form of ties to the individual practitioners are linked with less consumer engagement. It is perceived that several different traits tends to characterize the active status of the health care consumers, in addition to seeking and the using of information on the basis of the cost and the quality, the considering of the range of alternatives before the choosing of the providers treatments, the construction of independent judgments pertaining to the quality are now considered (Lupton, Donaldson, & Lloyd 1991; Hibbard & Weeks 1987;). In the earlier times, individuals use to do trial and error methods using the information from the family and friends along with the judgments of individual physicians (Hibbard & Weeks 1987). As per (William B.Lober, 2011), the landscape of the health care consumer is expanding and changing dramatically. The consumers engaged desire for greater levels of services from the doctors, access to the information and other choices. As per the findings of the Deloitte report pertaining to the consumer priorities in Health care (2016), a series of top-tier priorities was expressed by the consumers. In one of the research studies, the factors influencing the patients pertaining to the selection of the hospital were discussed. With the advancement in technology, the patients have numerous information at their disposal. Patients now tend to have questions in their minds about the choices of drugs, diagnosis, cost of

the treatment and the duration of the drug. The study illustrated that the inability to render with satisfactory answers can lead to dissatisfaction and loss of trust, thus making the switch. While a study contemplated by Wu et al. (2018) discussed the service provisions, pricing, and satisfaction of the patients in the online-based health communities. Primarily, the study researched the impact of online services. Also, a research conducted by Meesala and Paul (2018), the researchers highlighted that the industry of healthcare in the countries which are developing tends to exhibit a high rate of growth over the recent years. The research highlighted that the satisfaction of the patient is in direct relation to the loyalty of the patient to the hospital. Satisfaction is determined as a psychological response in different ways. It can also be described as a judgment that is emotional in response to the consumers. As per Mackasare (2016), the predilections of the consumers for the medical treatment was explored and highlighted. Although a wide acceptance is perceived as allopathic medicines because of the significant progress in medical research, there are also several side effects of such medicines. Hence, there is more awareness of the Ayurvedic, homeopathic or other such alternatives that have no such side effects. While people also tend to undergo self-medication wherein they ensure taking of decisions using their mindset and thus choose drugs or medicines compatible depending on their past experiences. Due to the lack of time, unavailability of doctors, minor illnesses, economic reasons, crowded hospitals and difficulty of accessibility ensures such practices of self-medication (Mackasare, 2016). As per (K.Kumanyika, 2008) it is, illustrated that societal, cultural along with the environmental factor tends to influence the health. The social-based class tends to impact health due to the access of an individual to the services, nutrition, education and living conditions. Culture hence influences health. In the current society, the majority of the common illness are afflicted that is associated with the lifestyle of the population.

## **2.6 USE AND SATISFACTION OF DIFFERENT SYSTEM OF MEDICINE**

As per a study contemplated by Gall et al., (2019) the researcher explored the experiences of the healthcare providers and their subsequent perspectives. The study primarily focused on the perspectives of traditional and complementary medicine



usages. Over time, the application of a traditional and complementary form of medicine for the treatment of chemotherapy and radiotherapy is expanding (Horneber et al., 2011). Primarily, the traditional use of medicine and complementary medicine comprises of a broad range of technologies, practices, products, knowledge systems along with the approaches for the prevention and treatment of illness and promotion of well-being which are not connected historically with the conventional based medicines (Adams et al., 2013). The study by Gall et al. (2019) concluded in the research that there still exists a commonly known perception pertaining to traditional, complementary and conventional medicine. These perceptions are oppositional instead of being complementary in nature. As per Mann et al. (2004) the mainstream medicine is changing. There is evidence that the other therapeutic modalities that are based on different conceptual frameworks tend to begin with a dominant form of model (Eisenberg, et al., 1993; Eisenberg et al., 1998; Eisenberg, et al., 2001). Several trends suggest that the conventional system of medicine yields in the 21st century to an increasingly pluralistic health-care system of medicine, wherein the different models of care may also co-exist (Barrett, 2003). In the current healthcare system of medicine, both the patients and providers tend to experience problems when multiple and uncoordinated healing based approaches are utilized (Markman, 2002). To cite an example, the used potential adverse interactions of herb-based occurs as patients mix the treatments of herbs and pharmaceutical without the awareness or the guidance of the providers of healthcare (Piscitelli, 2000; Ang-Lee, Moss, & Wuan, 2001; Piscitelli, Burstein, & Chaitt, 2002). More comprehensively, the term “integrated” or “integrative” describes the medical based practices which embraces with the more holistic concepts and methods of complementary and alternative practices (Rakel & Weil, 2003). More specifically, a healthy and effective system of care in the integrated form requires a thoughtful and conscious approach to combining different healing modalities. The expansion in the users of CAM has different views with regard to it. Primarily, the motive of the consumers now is to seek an alternative form of care using the different systems of medicines, thus revealing the reason for increasing the number of CAM users. Thereby, it suggests that the priority of the consumer is likely to influence the futuristic healthcare models of health care.

Furthermore, several individual and cultural-based factors tend to influence the choice of the systems of health care, comprising of gender, geography, age, race, and education (Bair et al., 2002). Furthermore, the significance also includes the conditions of the health for which the consumer's lookout for the care. Several significant studies have been conducted over the past which signifies that patients who are suffering from chronic based diseases and are non-life threatening problems and tend to be the major consumers of the CAM (Bausell, Lee, & Berman, 2001). While other relevant studies also signify that a majority of the users of the CAM tend to employ the application of CAM in the form of mainstream medicine in order to prevent rather than treatment of illness (Druss & Rosenheck, 1999; Ernst, 2001). Pertaining to the benefits and the challenges of integrative health care, there is a considerable form of significance associated with the practices, applicability, beliefs and the therapies of CAM over the conventional practices of healthcare practices. Significance like the options in treatment, improvement in patients, satisfaction of the provider and the improved therapeutic based outcomes are associated with it (White & Ernst, 2000). Along with these benefits, there are also exist significant challenges. If there is the successful integration of conventional and non-conventional based practices, then apart from the consumers the practitioners also tend to confront the issues. However, it is also reported that the enhancement of the strengths of the conventional based medicines, the integrated system of medicine is able to balance the associated deficiencies (Caspi et al., 2003). Other potential negative side effects of the individual pharmacological agents along with the polypharmacy include the high cost, suppression of the symptoms without prompting complete healing. The practices of the CAM tend to share a holistic form of approach for healing, one that emphasizes an individualized approach for diagnosing and treating the patients. Primarily, it is the disease instead of the person which aims to guide the approach for the treatment. In addition to the anecdotal evidence, it is suggested that significant CAM and providers of the integrated-care providers spend more time getting to know the needs of the patients and their desires.

Overall, these provide an approach that is a patient-centered approach for the diagnosis and treatment which may improve both the patient and satisfaction of the caregiver (Snyderman & Weil, 2002). As per a study elucidated by (Manfred Anlauf, 2015), the complementary and alternative therapies of the drug versus the science-oriented medicine. A significant study was contemplated by Nabi et al. (2015) highlighting the satisfaction of clients towards the Ayurvedic and Unani system of medicine. The study was confined to the region of Bangladesh, however, it highlighted significant points. The study found that the majority of the patients were found to be educated and the majority of them tend to use the Unani and Ayurvedic/Alternative/ Complementary/ Herbal system of medicines before. From the study, it was revealed that the majority of the respondent's individuals found a satisfactory and good quality of behavior from the doctors. This revealed that the majority of them commented on the doctor's service as satisfactory and good (Nabi et al., 2015). While research conducted by Naaz (2019) studied service utilization along with the satisfaction of the patients among the patients in Delhi. Conclusively, the study highlighted that the patients were satisfied with the services which were provided through the AYUSH hospital. While the services which were least satisfied must be considered as a point for improvement in the overall level of satisfaction. (Simrandeep K. Bhatti, 2015). Satisfaction among the patient's forms to be an integral element reflecting the service quality at any level of service of health.

## **2.7 RESEARCH GAP**

From the review of the literature, significant gaps were identified. The current study was primarily focused on the awareness, factors influencing the choice and treatment satisfaction among the patients in Punjab towards the different systems of medicine. There is no research over the years that assessed the awareness regarding the different systems of medicine for healthcare. Individual studies have been conducted addressing and assessing the awareness of different systems of medicine for healthcare. Hence, in the present study, the researcher will comprehensively aim to assess awareness among the respondents for all the different systems of medicine

for healthcare together. Additionally, no study has classified the respondents into different segments depending on their choices for different systems of medicine. This current research will hence also explore and highlight this gap identified in the literature. Moreover, none of the research conducted has identified the factors influencing the choice of the patients for selecting the different systems of medicine. The review of the literature also highlighted that none of the researchers has worked to comprehensively study the relative influence of the factors affecting the choice of the treatment among the different systems of medicine. Thereby, the present research is intended to explore and highlight all the factors which have not been touched upon over the past. The identification of the factors influencing the choice of the patients for selecting the system of medicine along with the treatment satisfaction of the respondents is proposed to be elucidated in the present study. Plainly, there is a freshly discovered demand and gratefulness of the satisfaction of different systems of medicine and many will go far and wide to meet this research topic. Notionally, the feedback of the patients can be studied from the different papers for assessing the individual and thereby comparing the satisfaction of the patients with the different systems of medicine. Not only the review helped in improving the insight, but it also helped in learning experiences from their research. This study can be useful to Government, Semi Government/Private companies, medical professionals, healthcare administrators, media and Pharmaceutical agencies to know more about the healthcare services. The results of this study can surely be used by the regulatory bodies to measure the existing performance of different systems of medicine and device new strategies for advancement.

## **2.8 RESEARCH HYPOTHESIS**

The following hypothesis has been formulated pertaining to the current research topic and coverage of the developed objectives. The hypothesis developed are tested by applying the appropriate statistical tools. Henceforth, the following mentioned hypothesis is constructed in relation to the secondary data of the present study.

**H01 : There is no significant difference among respondents regarding awareness to different systems of medicine**

**H02 : There is no significant difference between choice for different systems of medicine among different category of respondents.**

**H03 : There is no significant influence of different factors in affecting the choice of treatment in different systems of medicine.**

**H04 : There is no significant difference between treatment satisfaction of respondents for different systems of medicine**

## CHAPTER – 3

### RESEARCH METHODOLOGY

It has become an imperative indicator in modern times to investigate the provision of healthcare, its quality and patients' satisfaction from the healthcare treatment provided by various healthcare institutions (Wolf & Jason, 2014). The added initiative has been taken by the central and the state government in the past few years to increase the healthcare facilities in Punjab. Despite that and by considering the low living standard of the most rural population, such policies are not proved fruitful. In villages of Amritsar and Gurdaspur districts of Punjab, as of the year 2008-2009, maximum people are forced to take credit for healthcare purposes. The public health service in India is being constantly upgraded by the government and health organization, but there is a huge problem when it comes to the overall pertinence (Singh, 2010).

#### 3.1 NEED AND SCOPE OF THE STUDY

Over the years, there is hardly any research in Punjab that has assessed the awareness regarding the different systems of medicine for healthcare. Additionally, no study has classified the respondents into different segments on the basis of their choices for different systems of medicine. Moreover, satisfaction of the patients in Punjab towards different systems of medicine is not established significantly.

This study demonstrates stark differences in the availability of various types of systems of medicine, people's inclination to a particular kind of medication due to the awareness and adherence to the treatment. The collected data will bring considerable changes in the healthcare facilities along with highlighting the expected responsibilities of skilled health workers who are the foundation of meeting client demand on immediate basis. The study throws light on the disparity of awareness level towards different systems of medicine which leads to the development of a particular system of medicine. A quantitative research approach considers needs of the people and then let them act accordingly i.e. to choose most suitable system of medicine. The study collected data from various healthcare treatments such as

allopathy, homoeopathy, ayurveda, unani, yoga, and CAM from various published resources. For improving the quality of healthcare, through this research, secondary data from various resources such as books, research papers and so on is collected to aid this research and establish a solid framework for this study.

The research methodology that is adopted in this study to conduct the research will give insight to the present healthcare facilities while primarily focusing on the quality of service. In addition to this, doctors, nurses and other medical staff will be perceived to be more reactive in providing top-notch service to their patients. This chapter of the study states the aim and objectives laid for this research. It will be followed by the research methodology adopted to attain those objectives.

### **3.2 AIM AND OBJECTIVES**

The current study aims to evaluate the awareness and factors influencing the choice and treatment satisfaction of patients in Punjab towards the different system of medicine.

The objectives of this study are stated as follows: -

- To assess awareness among respondents regarding different systems of medicine for healthcare.
- To classify the respondents into different segments based on their choices for different systems of medicine.
- To identify the factors that influence patients' choice for selecting a system of medicine.
- To study the relative influence of factors affecting the choice of treatment among different systems of medicine.
- To study the treatment satisfaction of respondents with different systems of medicine.

### **3.3 RESEARCH HYPOTHESIS**

The following hypothesis has been formulated pertaining to the current research topic and coverage of the developed objectives. The developed hypotheses are tested

by applying the appropriate statistical tools. Henceforth, the following mentioned hypotheses are constructed in relation to the secondary data of the present study.

**H01** : There is no significant difference among respondents regarding awareness to different systems of medicine

**H02** : There is no significant difference between choices for different systems of medicine among different category of respondents.

**H03** : There is no significant influence of different factors in affecting the choice of treatment in different systems of medicine.

**H04** : There is no significant difference between treatment satisfactions of respondents for different systems of medicine

#### **3.4 RESEARCH METHODOLOGY**

It has often been found that methodology is linked with coming up with a research plan. It is often also associated with developing a questionnaire, collection of a limited set of data and subsequently, learning to apply some basic statistics in the field of academics. The notion is gradually developing the outlines i.e. the viewpoint of the research. This panorama is further enlarged by the terminological confusion about the word methodology and its underlying implications. The terms ‘method’ and ‘methodology’ are often employed interchangeably (Jonker & Pennink, 2010). One of the most relevant sections of the research is the research methodology. The research methodology plays a key role in the research work. The progression of the research work is depicted by the research methodology in a well-defined manner. Research methodology is comprised of the subject matter selected by the researcher and the application of a method that satisfies the needs of the study, the most (Bazeley & Jackson, 2013) and (Shank et al. 2015). It is imperative that the ideas and theories adopted for the research are understood and the need to use them for pursuing this research are analysed. Therefore, the chosen quantitative approach for philosophical assumptions, underpinned in the current research is the deductive approach. In research methodology, the various steps which are generally adopted by a researcher for examining the research problem along with the reasoning behind



them are discussed (Kothari, 2019). The research methodology is affirmed as the procedure by which a researcher searches for erudition as per the chosen subject matter (Bazeley, & Jackson, 2013). The data is collected via paper-based self-administered questionnaires and surveys from the patients; it predominantly consists of closed questions, although some open questions are included. Thereby, this chapter comprehensively dwells upon the objectives, research questions, research approaches, and research design. The data collection techniques, sampling techniques and determination of sample size employed in the study are discussed in the upcoming sections along with the limitations that are presented to conclude the chapter.

### **3.4.1 Research Approach**

Research is not only the method of documentation and collecting information, but is collection of data, analysis of collected data and interpreting the data in order to deduce a process. The procedure and plans that are based on broad assumptions are termed as research approach along with techniques like investigation and interpretation are incorporated by the researcher. The methodology adopted in any research to provide clarification to the research question is of three kinds- qualitative, quantitative and mixed. Research approach used in this study is quantitative and descriptive research

### **3.4.2 Research Design**

Research design identifies the overall strategy that is followed to combine the various aspects of the study logically and coherently. The research design is a holistic approach to connect the conceptual research problem to pertinent empirical research (Glogowska, M. 2011).). According to Creswell (2017), the research design can be regarded as a map of the research process according to which the research process is governed in a controlled and manageable way by validating the facts and figures. Different types of research designs are exploratory, descriptive, explanatory and experimental design (Wisdom, J.P et. Al 2011).). The present research aims to conduct a study on the awareness, factors influencing patients' choice and treatment satisfaction of patients in Punjab towards different systems of medicine.

A descriptive research design helped in describing the mind-set of the chosen respondents of Punjab towards the factors that influence their choices and their treatment satisfaction towards different systems of medicine. Moreover, this research design assists in determining the overall view of the patients towards the treatments they get and their choices towards different systems of medicines.

### **3.4.3 Data Collection**

Data collection is an essential component of any research. The research methods used in the research are based on data that is gathered by the researcher. Data collected from various sources serve as the main component which facilitates research methodology. Data can be obtained using two data collection techniques, primary and secondary, both of which play a striking role in meeting the objectives of the study (Keith Francis Punch 2014).

Primary data collection is the most significant way of gathering the required information by using several techniques. Under primary data technique, the researcher, in order to meet the research objectives, gathers raw data which is later analysed (Freedman, D. 2009). The primary data collection techniques can further be sub-categorised into quantitative and qualitative research methods. In the quantitative data collection technique, the researcher conducts online or offline surveys using questionnaires (Flick, U. 2015). Secondary Data is collected from the studies of the past; that is, the existing research done by the scholars. Secondary data collection techniques contain a vast amount of theories and evidences collected from different secondary resources. This technique focuses on accumulating the data for gathering a detailed knowledge of the topic under consideration (Padgett, 2016). The secondary information is collected through various publications, reports, essays, websites related to educational concepts and books which are relevant to the present study. The present research uses primary data collection techniques to gather the data relevant for the study.

The current research study adopted a quantitative approach for the collection of the data. For this purpose a sample of 496 respondents was selected and surveys were conducted and questionnaires were distributed to prove the status of patients in Punjab.

### **3.4.3.1 Development of Data Collection Instrument**

The questionnaire is developed in 4 Sections.(Appendix 1)

**Part A**, questions related to patient's awareness towards the various system of medicine are incorporated. It has questions linked to patient's responses related to awareness, popularity, accessibility, online perception, and choice of patient towards different systems of medicine in various medical conditions. 1 to 7 point Likert scale is used in most of the questions.

**Part B**, factors responsible for choosing a particular system of medicine are asked. Total 26 items are listed and rating taken on 1 to 7 point scale.

**Part C** includes satisfaction related question from the undertaken treatment. In this section already established tool named "Treatment Satisfaction questionnaire for medication" (TSQM) is incorporated. The researcher in the following study has used the Likert Scale to form the questions in the close-ended questionnaire. The scale is kept within 1 to 7

**Part D** includes questions related to Socio-demographic profile of the respondents.

### **3.4.3.2 Process of questionnaire validation**

#### **Expert Validation:**

5 academicians are chosen from the field of statistics (1expert), marketing (2 expert), social sciences (1 expert) and applied medical sciences (1 expert) so that questionnaire of this multidisciplinary research work is thoroughly validated.

5 medical experts are chosen from the field of Allopathic (1 expert) – from DMC & H Ludhiana, Ayurveda (1 expert) – from Dayanand Ayurvedic College Jalandhar, Homeopathic (1 expert) – private practitioner from Hoshiarpur, Yoga (1 expert) – Patanjali Yogpeeth, Haridwar and Alternative Medicine (1 expert) - private practitioner from Jalandhar.

### **Pilot Testing:**

Questionnaire is administered to 200 respondents. Collected data is analysed and used to validate the questionnaire. Final improvement of the questionnaire is done, and further it is administered among the sample population to carry out the research work.

### **Reliability Testing:**

Exploratory factor analysis is conducted by using SPSS Statistics Ver.23.0 to extract factors. The determinant is well above 0.00001 at 0.003. The KMO is excellent at 0.947. The Bartlett's test of sphericity is also significant. The Principal Component Analysis method of extraction with direct oblimin technique produced three factors with strong eigen values of 5.013, 4.662 and 4.444, and explained 43.333 % total variance, when 5 out of the 26 items from the pool are eliminated. The three factors has eight, seven and six items in them with the Cronbach's alpha measure of reliability 0.796, 0.768 and 0.751 respectively. The sub-scales displays similar Raykov's composite reliability estimate too. SPSS AMOS Ver. 23.0 is used to conduct confirmatory factor analysis. All the goodness of fit indices including CMIN/DF and RMSEA are found to be satisfying their benchmark values, except RMR. Details in the attached research paper (Appendix 2).

### **3.4.4 Sampling Procedure**

The sampling technique is defined as a method or procedure in which the sample for the study is selected by the researcher based upon the area selected for the research. The process of sampling helps the researcher in collecting the data at a much faster level and also helps in enhancing data accuracy (Sarantakos, 2013). Further, sampling can be defined as the selection of a subset of people from a huge population for the purpose of estimation of characteristics of the entire population. There exist various advantages of using the sampling rather than measuring the perception of the entire population; like it helps in faster data collection and also lowers the cost of gathering data. The two type of sampling techniques are viz a viz probability sampling and non-probability sampling.

*Details of Chosen technique are mentioned below:*

#### **3.4.4.1 Population of Study:**

The objectives of study are related to six different system of medicines practiced in Punjab (India). Hence the population of study consist of all those who visited any healthcare establishment related to different system of medicines prevailing in Punjab.

#### **3.4.4.2 Sampling Frame:**

The geographical boundaries of Punjab state will represent the sampling frame.

#### **3.4.4.3 Sample Size:**

A sample of approximately 400 patients including both genders are targeted. The sample size is taken on the basis of review of literature and calculated on the basis of total population of Punjab, confidence level, margin of error and then using online sample size calculator. ([www.raosoft.com/samplesize.html](http://www.raosoft.com/samplesize.html)).

#### **3.4.4.4 Sampling Unit:**

It includes respondents who experienced healthcare service in any healthcare industry within Punjab and equal or above 18 years of age.

#### **3.4.4.5 Sampling Technique:**

It is based on non-probability multi stage sampling plan, where 496 respondents (based on review of literature and calculation of sampling plan) are created. At first stage one quota sampling is adopted for 3 historically divided geographical regions of Punjab that are- Doaba, Majja and Malwa. Later in stage two, further quota sampling technique is adopted and sample proportion based on taking equal samples from each 6 systems of medicine and those are- (a) Allopathy, (b) Ayurveda, (c) Homeopathy, (d) Unani and Siddha (e) Yoga and Naturopathy (f) Alternative Medicine. In final stage, purposive sampling is done by finding out respondents who experienced healthcare service in any healthcare industry within Punjab and are

equal or above 18 years of age. In this process, healthcare establishments which belong to different systems of medicine are contacted and respondents based on primary criteria are intercepted there. The present study is cross-sectional that analyses data collected from a population, or a representative subset, at a specific point in time.

#### 3.4.4.6 Sample Description:

This table shows the distribution of respondents region wise and as per system of medicine.

**Table 3.1: Description of Sample Collection**

<b>System of medicine \ Region</b>	<b>DOABA</b>	<b>MAJJA</b>	<b>MALWA</b>
Allopathy	20	20	40
Ayurveda	20	20	40
Homeopathy	20	20	40
Unani and Siddha	32	26	38
Yoga	20	20	40
Alternative Medicine	20	20	40
<b>Total</b>	<b>132</b>	<b>126</b>	<b>238</b>

(Source: Primary Data, computed by the Author)

### 3.5 DATA ANALYSIS

Data analysis involves the process of cleaning, inspecting, modelling and inspecting the data with the aim of retrieving the concerned information, sharing a conclusion and assisting in the decision making of a firm. The concept of data analysis has various angles and approaches and uses multiple techniques to interpret the gathered data (Denzin, N. K. et.al 2011). One of the crucial sections of research work is the data analysis by which the researcher analyses the qualitative and quantitative data

collected for the study (Creswell, 2013). Data analysis tools are chosen in accordance with the data being collected. As per the collected data, the researcher decides the data analysis tools which are most suitable for the study. The qualitative data analysis involves the human interpretations in accordance with thematic analysis and content analysis techniques so as to elucidate the collected data with the interview process (Kumar, 2019). Moreover, diverse statistical tools are used to analyse quantitative data. This is because the information collected is numerical and needs to be converted into charts and graphs so that the audience can comprehend it easily.

***Chosen technique:***

For the analysis of the quantitative collected data, which includes the circulation of a questionnaire among 496 respondents, a quantitative data analysis tool is used. The data collected from the quantitative method is tabulated and analysed by using descriptive analysis. The following statistical tools are used in the research work for the interpretation of data.

For achieving different objectives of research different statistical tools with SPSS are used. For accomplishing first objective (i.e., to assess awareness among people regarding different systems of medicine for healthcare) descriptive statistical analysis are used to analyse the data. For achieving second objective (i.e., to classify the respondents into different segments based on their choices for different systems of medicine) cluster analysis is done to make different segments of the population of Punjab based on their attributes and choices towards different system of medicine. For achieving third objective (i.e., to analyse factors that influence patients' choice for selecting system of medicine) factor analysis is used to find out the variables which are important for making a choice towards a particular system of medicine. For achieving fourth objective (i.e., to study relative influence of factors affecting choice of treatment in different system of medicine) discriminant analysis is used.. The fifth objective (i.e., to study treatment satisfaction of different system of medicine) Likert scale, ANNOVA, Correlation and other descriptive analysis are used to predict satisfaction level of respondents in their preferred medical treatments.

### **3.6 LIMITATIONS OF THE STUDY**

This study is limited to the respondents who are residing in Punjab and is based on the views of limited respondents of a particular region; therefore, results may be difficult to be generalized. In order to collect much more accurate results and responses on factors influencing the choice of different systems of medicine, analysis and views can be gathered from people residing in a particular country with diverse views and adoption of different systems of medicine as per the available resources in their region.

In healthcare management, there is lack of prior research studies related to this topic; hence research tool may not be perfect and can be further developed paving the way for upcoming researches. Besides that the responses of the respondents getting treatment through different systems of medicine cannot be independently verified. Another limiting factor in this research is that the data collected is primary data and thus, the responses collected might be biased towards a particular system of medicine.



## CHAPTER – 4

# AWARENESS AMONG RESPONDENTS REGARDING DIFFERENT SYSTEMS OF MEDICINE FOR HEALTHCARE

It is vital to explore the people's view regarding the awareness from particular form of medicine system e.g. Allopathy, AYUSH (Ayurveda, Homeopathy, Unani, Siddha, and Yoga,), and Alternative medicine (CAM).

Thus, this study is aimed to examine the extent of medical awareness and popularity of different systems of healthcare among the people of Punjab. Questionnaire was used as Research tool, and was designed on the basis of literature findings. Balanced approach was adopted as respondents are given multiple-choice options, list questions and Likert-style rating question.

In this study various dimensions related to awareness to different system of medicine were explored. They are mentioned as follows:

- 1) Familiarity about different systems of medicine
- 2) Preference of system of medicine in various categories of ailment like emergency, surgery, chronic (lifestyle disease), routine (common) illness, acute illness and infections.
- 3) Convenient access to different systems of medicine
- 4) Most significant source of information for different systems of medicine
- 5) Usage of the internet to obtain health information and persuading factors for online purchase of health products.
- 6) Belief about the effectiveness of treatment in the different systems of medicine.
- 7) Preference for the system of medicine in various medical conditions as classified by WHO.

## Analysis and Interpretation

The present chapter deals with analysis of data respective to the first objective and its interpretation. The data collected was tabulated and transferred to SPSS.

The objective is to assess awareness among respondents regarding different systems of medicine for healthcare.

### 4.1 AWARENESS BASED ON THE FACT IF RESPONDENT HAVE EVER HEARD, OR EXPERIENCED ANY SYSTEMS OF MEDICINE FOR PREVENTION, DIAGNOSIS, TREATMENT OF DISEASES AND MAINTENANCE OF HEALTH (UNAIDED RECALL)

Table 4.1: The awareness of respondents regarding different systems of medicine of health care

S.No.	Medicine	Awareness %	Not Aware %
1	Allopathy	76.0	24.0
2	Ayurveda	80.6	19.4
3	Homeopathy	67.9	32.1
4	Unani	5.9	94.1
5	Siddha	0.4	99.6
6	Yoga	12.5	87.5
7	CAM (Alternative Medicine)	5.3	94.7
	<b>Chi Square : 361.25</b>	<b>Significance : .000</b>	

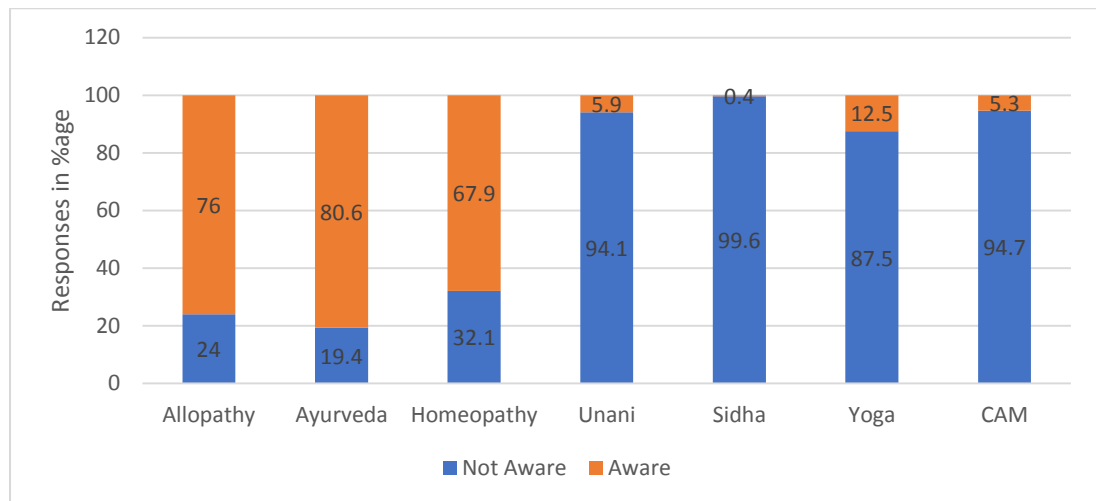
(Source: Primary Data, computed by the Author)

Table 4.1 shows that 76% of respondents are aware about allopathy and 24 % respondents are not aware about allopathy. 80.6% of respondents are aware about Ayurveda and 19.4 % respondents are not aware about Ayurveda. 67.9% of respondents are aware about Homeopathy and 32.1 % respondents are not aware about homeopathy. 5.9% of respondents are aware about Unani system medicine and

94.1 % respondents are not aware about Unani system of medicine. 0.4% of respondents are aware about Siddha system medicine and 99.6 % respondents are not aware about Siddha system of medicine. 12.5% of respondents are aware about Yoga and 87.5 % respondents are not aware about Yoga. 5.3% of respondents are aware about CAM system medicine and 94.7 % respondents are not aware about CAM system of medicine.

The chi square value for difference between aware and non-aware is 361.25, which is significant. Hence it is concluded that there is significant different in awareness and non-awareness about different systems of medicine.

Ayurveda is India’s native system of medicine and people are well aware of the same. Allopathic treatment, which is commonly known as modern medicine, most respondents rated it also high on awareness levels, followed by other indigenous treatments like Homeopathy, Yoga, Unani or others.



**Figure 4.1: The level of awareness of respondents regarding different systems of medicine of health care**

#### **4.2 LEVEL OF FAMILIARITY REGARDING DIFFERENT SYSTEMS OF MEDICINE**

Table 4.2 shows that 34.3% respondents are extremely familiar about allopathy. 15.2% are very much familiar, 10.9% are moderately familiar, 5.3% are slightly

familiar, 4.8% are neutral, 11.3% are not so familiar and 18.2% are not familiar at all.

**Table 4.2: The level of familiarity of respondents about different system of medicine**

S.No.	Level	Allopathy	Ayurveda	Homeopathy	Unani	Siddha	Yoga	CAM
1	Extremely familiar	34.3	26.3	20.0	9.3	11.7	8.3	10.7
2	Very much familiar	15.2	24.8	27.9	10.7	3.2	28.7	4.8
3	Moderately familiar	10.9	14.7	19.6	12.1	7.1	23.8	16.8
4	Neutral	4.8	7.3	14.1	14.7	14.3	12.7	16.6
5	Slightly familiar	5.3	5.1	8.1	9.1	8.3	16.0	2.4
6	Not so familiar	11.3	10.9	8.3	20.0	21.8	4.2	16.4
7	Not at all familiar	18.2	10.9	2.0	24.0	33.5	6.2	32.3
<b>Chi Square : 182.79</b>		<b>Significance : .000</b>						

(Source: Primary Data, computed by the Author)

26.3% respondents are extremely familiar about Ayurveda. 24.8% are very much familiar, 14.7% are moderately familiar, 5.1% are slightly familiar, 7.3% are neutral, 10.9% are not so familiar and 10.9% are not familiar at all.

20.7% respondents are extremely aware about Homeopathy. 27.9% are very much aware, 19.6% are moderately aware, 8.1% are slightly aware, 14.1% are neutral, 8.3% are not so familiar and 2.0% are not aware at all.

9.3% respondents are extremely familiar about Unani. 10.7% are very much familiar, 12.1% are moderately familiar, 9.1% are slightly familiar, 14.7% are neutral, 20.0% are not so familiar and 24.0% are not familiar at all.

11.7% respondents are extremely familiar about Siddha. 3.2% are very much familiar, 7.1% are moderately familiar, 8.3% are slightly familiar, 14.3% are neutral, 21.8% are not so familiar and 33.5% are not familiar at all.

8.3% respondents are extremely familiar about Yoga. 28.7% are very much familiar, 23.8% are moderately familiar, 16.0% are slightly familiar, 12.7% are neutral, 4.2% are not so familiar and 6.2% are not familiar at all.

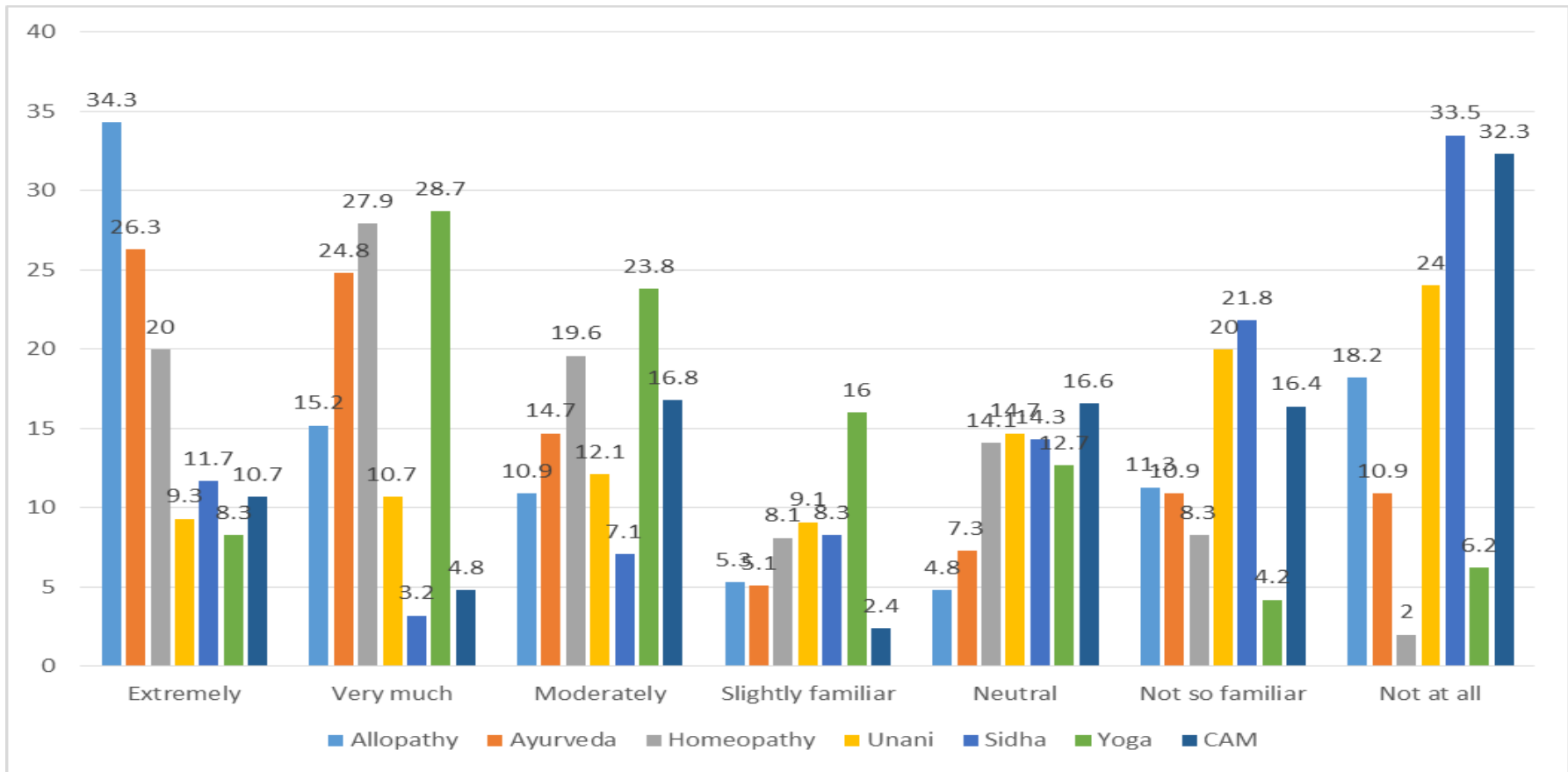


Figure 4.2: The level of familiarity of respondents about different systems of medicine

10.7% respondents are extremely familiar about CAM. 4.8% are very much familiar, 16.8% are moderately familiar, 2.4% are slightly familiar, 16.6% are neutral, 16.4% are not so familiar and 32.3% are not familiar at all.

The chi square value for difference in familiarity about various system of medicine is 182.79, which is significant. Therefore, it is concluded that there is significant difference in familiarity about different systems of medicine.

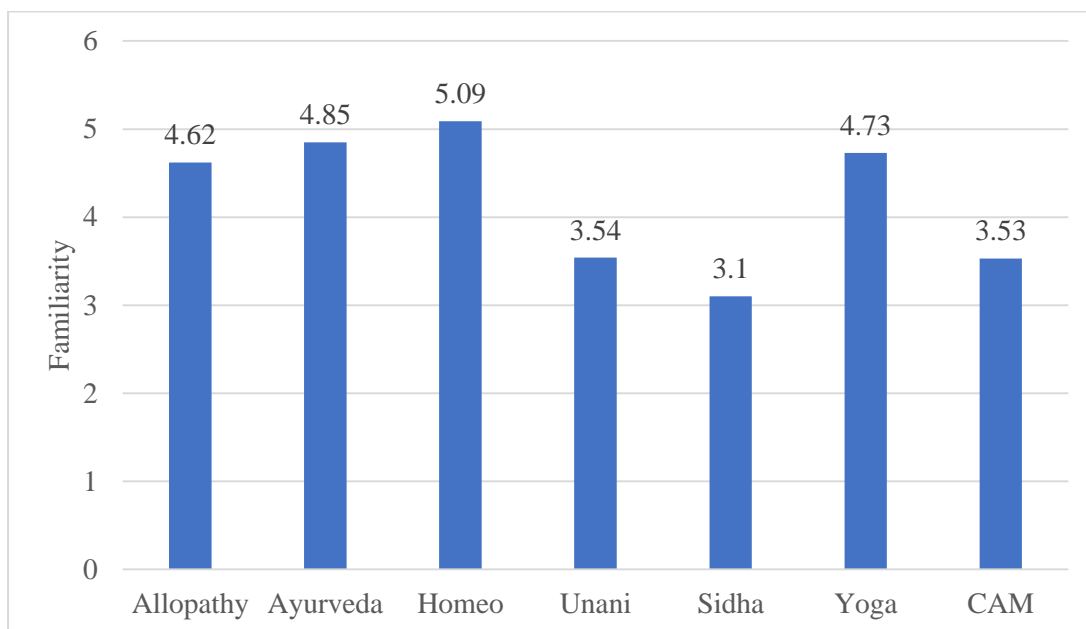
#### 4.3 MEAN AND STANDARD DEVIATION OF FAMILIARITY ABOUT DIFFERENT SYSTEMS OF MEDICINE

**Table 4.3: Mean and Standard Deviation of Familiarity about different systems of Medicine**

	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>
Familiarity about: Allopathy	496	4.62	2.361
Familiarity about: Ayurveda	496	4.85	2.055
Familiarity about: Homeopathy	496	5.09	1.564
Familiarity about: Unani	496	3.54	1.990
Familiarity about: Siddha	496	3.10	2.038
Familiarity about: Yoga	496	4.73	1.509
Familiarity about: CAM	496	3.53	2.051

(Source: Primary Data, computed by the Author)

Table 4.3 shows that the mean of familiarity about allopathy is 4.62 with standard deviation 2.36. The mean of familiarity about Ayurveda is 4.85 with standard deviation 2.05. The mean of familiarity about Homeopathy is 5.09 with standard deviation 1.56. The mean of familiarity about Unani is 3.54 with standard deviation 1.99. The mean of familiarity about Siddha is 3.10 with standard deviation 2.03. The mean of familiarity about allopathy is 4.73 with standard deviation 1.50. The mean of familiarity about CAM is 3.53 with standard deviation 2.05. It can be said that respondents are most familiar with Homeopathy and least familiar with Siddha.



**Figure 4.3: Mean and Standard Deviation of Familiarity about different systems of Medicine**

#### 4.4 PREFERENCE OF SYSTEM OF MEDICINE IN VARIOUS CATEGORIES OF MEDICAL CONDITIONS

**Table 4.4: Preference of respondents in various categories of medical conditions**

S. No.	Medicine	Emergency	Surgery	Acute illness	Common illness	Chronic diseases	Infection
1	Allopathy	82.6	75.6	50.5	27.3	41.0	41.6
2	Ayurveda	5.7	10.7	19.4	36.2	36.6	26.7
3	Homeopathy			15.2	12.5	3.0	15.2
6	Yoga			.4	13.1	10.3	9.5
4	Unani		2.2	4.8			2.4
5	Siddha			2.6	7.7	4.4	2.0
7	CAM	7.1				2.2	
8	Cannot Say	4.6	11.5	7.1	3.2	2.4	2.6
<b>Chi Square : 215.72</b>				<b>Significance : .000</b>			

(Source: Primary Data, computed by the Author)

Table 4.4 shows that 82.6% prefer allopathy in emergency. 5.7% prefer Ayurveda in emergency. 7.1% prefer CAM in emergency. 4.6% are not sure about their preference in emergency. 75.6% prefer allopathy in surgery. 10.7% prefer Ayurveda in surgery. 2.2% prefer Unani in surgery. 11.5% are not sure about their preference in surgery. 50.5% prefer allopathy in acute illness. 19.4% prefer Ayurveda in acute illness. 15.2% prefer Homeopathy in acute illness. 0.4% prefer yoga in acute illness. 4.8% prefer Unani in acute illness. 2.6% prefer Siddha in acute illness. 7.1% are not sure about their preference in acute illness. 27.3% prefer allopathy in common illness. 36.3% prefer Ayurveda in common illness. 12.5% prefer Homeopathy in common illness. 13.1% prefer yoga in common illness. 7.7% prefer Siddha in common illness. 3.2% are not sure about their preference in common illness. 41.0% prefer allopathy in Chronic diseases. 36.6% prefer Ayurveda in Chronic diseases. 3.0% prefer Homeopathy in Chronic diseases. 10.3% prefer yoga in Chronic diseases. 4.4% prefer Siddha in Chronic diseases. 2.2% prefer CAM in Chronic diseases. 2.4% are not sure about their preference in Chronic diseases. 41.6% prefer allopathy in infection. 26.7% prefer Ayurveda in infection. 15.2% prefer Homeopathy in infection. 9.5% prefer yoga in infection. 2.4% prefer Unani in infection. 2.0% prefer Siddha in infection. 2.6% are not sure about their preference in infection.

The chi square value for preferences of different system of medicine at different situations is 215.72, which is significant. Hence it is concluded that the respondents prefer different systems of medicine in different situations.

In health conditions namely common illness, infectious illness and chronic ailments Ayurveda, Homeopathy and Yoga treatment put together has emerged to be the equally preferred choice, though in Emergency, Surgery and acute illness allopathic medicine system is the preferred choice of treatment.

#### **4.5 EASE OF LOCATIONAL ACCESSIBILITY TO DIFFERENT SYSTEMS OF MEDICINE FOR TREATMENT**

Table 4.5 shows that 34.3% says that allopathy is extremely easily accessible on locality. 15.2% say its very much easily accessible, 10.9% think its moderately



accessible, 5.3 think its slightly easily accessible. 4.85 are neutral about the ease of availability. 11.3% says they are not familiar about accessibility and 18.2% think its not easily accessible at all.

**Table 4.5: Ease of locational accessibility to different systems of medicine for treatment**

S. No.	Level	Allopathy	Ayurveda	Homeopathy	Unani	Siddha	Yoga	CAM
1	Extremely Accessible	34.3	26.3	20.0	9.3	11.7	8.3	10.7
2	Very Much Accessible	15.2	24.8	27.9	10.7	3.2	28.7	4.8
3	Moderately Accessible	10.9	14.7	19.6	12.1	7.1	23.8	16.8
4	Neutral	4.8	7.3	14.1	14.7	14.3	12.7	16.6
5	Slightly Accessible	5.3	5.1	8.1	9.1	8.3	16.0	2.4
6	Not So Accessible	11.3	10.9	8.3	20.0	21.8	4.2	16.4
7	Not at all accessible	18.2	10.9	2.0	24.0	33.5	6.2	32.3
<b>Chi Square : 182.79</b>		<b>Significance : .000</b>						

(Source: Primary Data, computed by the Author)

26.3% says that Ayurveda is extremely easily accessible on locality. 24.8% say its very much easily accessible, 14.7% think its moderately accessible, 5.1 think its slightly easily accessible. 7.3% are neutral about the ease of accessibility. 10.9% says they are not familiar about accessibility and 10.9% think its not easily accessible at all.

20.0% says that Homeopathy is extremely easily accessible on locality. 27.9% say its very much easily accessible, 19.6% think its moderately accessible, 8.1 think its slightly easily accessible. 14.1% are neutral about the ease of accessibility. 8.3% says they are not familiar about accessibility and 2.0% think its not easily accessible at all.

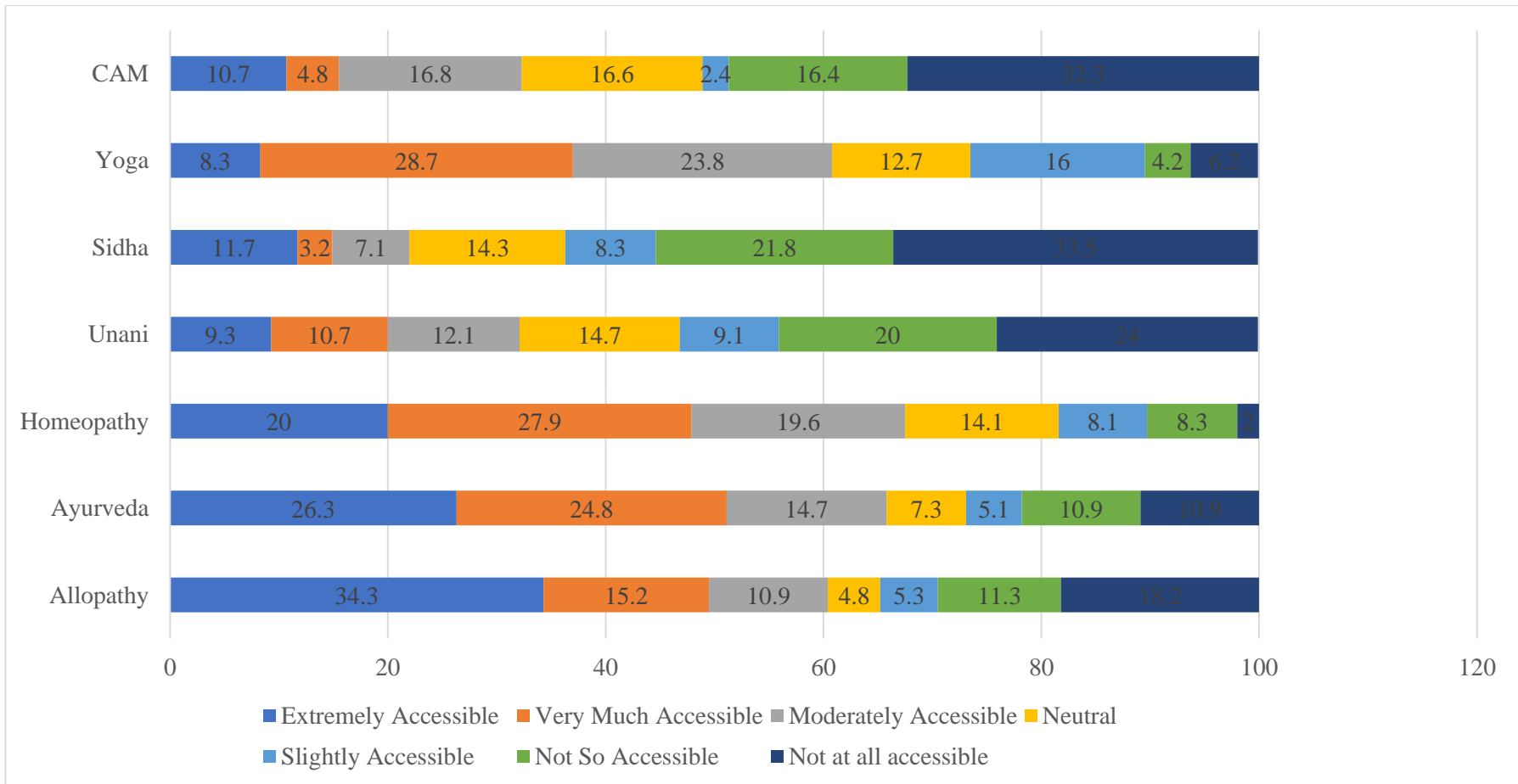
9.3% says that Unani is extremely easily accessible on locality. 10.7% say its very much easily accessible, 12.1% think its moderately accessible, 9.1% think its slightly easily accessible. 14.7% are neutral about the ease of accessibility. 20% says they are not familiar about accessibility and 20% think it is not easily accessible at all.

11.7% says that Siddha is extremely easily accessible on locality. 3.2% say it is very much easily accessible, 7.1% think its moderately accessible, 8.3% think its slightly easily accessible. 14.3% are neutral about the ease of accessibility. 21.8 says they are not familiar about accessibility and 33.5% think it is not easily accessible at all.

8.3% says that Yoga is extremely easily accessible on locality. 28.7% say it is very much easily accessible, 23.8% think its moderately accessible, 16.0% think its slightly easily accessible. 12.7% are neutral about the ease of accessibility. 4.2 says they are not familiar about accessibility and 6.2% think it is not easily accessible at all.

10.7% says that CAM is extremely easily accessible on locality. 4.8% say it is very much easily accessible, 16.8% think its moderately accessible, 2.4% think its slightly easily accessible. 16.6% are neutral about the ease of accessibility. 16.6% says they are not familiar about accessibility and 16.4% think it is not easily accessible at all.

The chi Square value for difference in accessibility of different systems of medicine is 182.79, which is significant. It means that there is significant difference in accessibility of different systems of medicine.



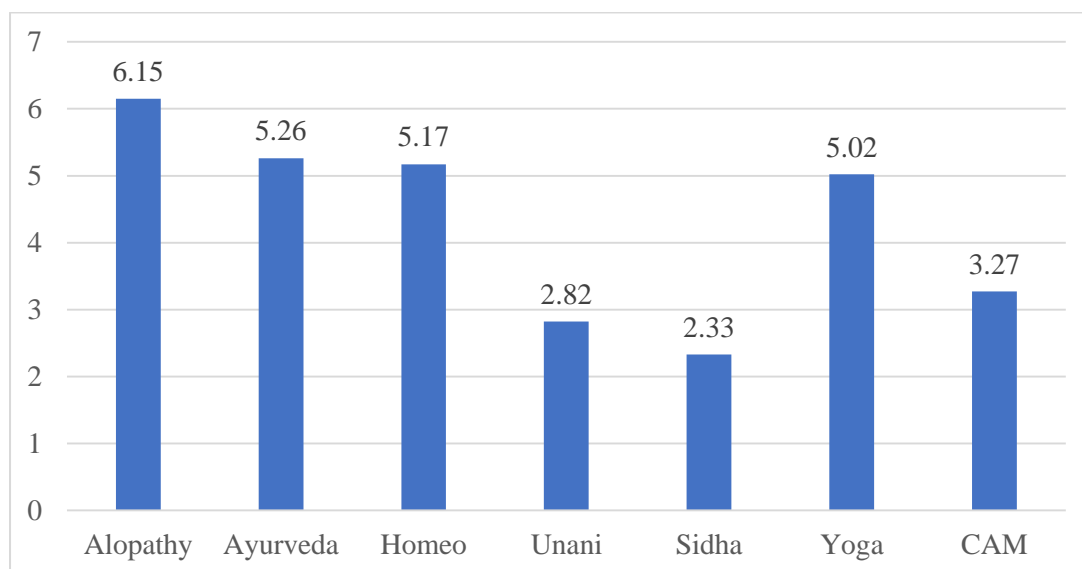
**Figure 4.4: Shows ease of locational accessibility to different systems of medicine for treatment**

#### 4.6 MEAN AND STANDARD DEVIATION OF ACCESSIBILITY OF DIFFERENT SYSTEMS OF MEDICINE

**Table 4.6: Mean and Standard Deviation of Location accessibility of different systems of Medicine**

	N	Mean	Std. Deviation
Location Accessibility: Allopathy	496	6.15	1.398
Location Accessibility: Ayurveda	496	5.26	1.723
Location Accessibility: Homeopathy	496	5.17	1.489
Location Accessibility: Unani	496	2.82	1.631
Location Accessibility: Siddha	496	2.33	1.437
Location Accessibility: Yoga	496	5.02	1.716
Location Accessibility: CAM	496	3.27	2.056

(Source: Primary Data, computed by the Author)



**Figure 4.5: Mean and Standard Deviation of Location accessibility of different systems of Medicine**

Table 4.6 and figure 4.5 shows that the mean of location accessibility of allopathy is 6.15 with standard deviation 1.39. The mean of location accessibility of Ayurveda is 5.26 with standard deviation 1.72. The mean of location accessibility of

Homeopathy is 5.17 with standard deviation 1.48. The mean of location accessibility of Unani is 2.82 with standard deviation 1.63. The mean of location accessibility of Siddha is 2.33 with standard deviation 1.43. The mean of location accessibility of allopathy is 5.02 with standard deviation 1.71. The mean of location accessibility of CAM is 3.27 with standard deviation 2.05. Hence it is concluded that allopathy is most accessible and with Unani least accessible.

#### 4.7 SOURCE OF INFORMATION ABOUT DIFFERENT SYSTEMS OF MEDICINE

**Table 4.7: The source of information about different systems of medicine**

S. No.	Medicine	Personal Media	Print Media	Broadcast	Outdoor Media	Digital media	Brand Placement
1	Allopathy	73.9	30.7	36.8	34.1	36.0	36.8
2	Ayurveda	17.2	36.6	14.5	20.6	15.8	8.7
3	Homeopathy	2.0	2.4	7.1	4.6	8.9	8.9
6	Yoga	4.8	8.1	17.0	13.3	8.5	7.1
4	Unani			4.8		2.4	2.8
5	Siddha	2.0	13.9	7.7	11.7	2.0	2.4
7	CAM		8.3	12.1	14.3	26.5	33.3

(Source: Primary Data, computed by the Author)

Table 4.7 shows that 73.9% respondents admit personal media as primary source of information about allopathy. 30.7% get information from print media, 36.8% get information from broadcast, 34.1% get information from outdoor media, 36.0% gain information from digital media and 36.8% get information from brand placement.

17.2% respondents admit personal media as primary source of information about Ayurveda. 36.6% get information from print media, 14.5% get information from broadcast, 20.6% get information from outdoor media, 15.8% gain information from digital media and 8.7% get information from brand placement.

2.0% respondents admit personal media as primary source of information about Homeopathy. 2.4% get information from print media, 7.1% get information from

broadcast, 4.6% get information from outdoor media, 8.9% gain information from digital media and 8.9% get information from brand placement.

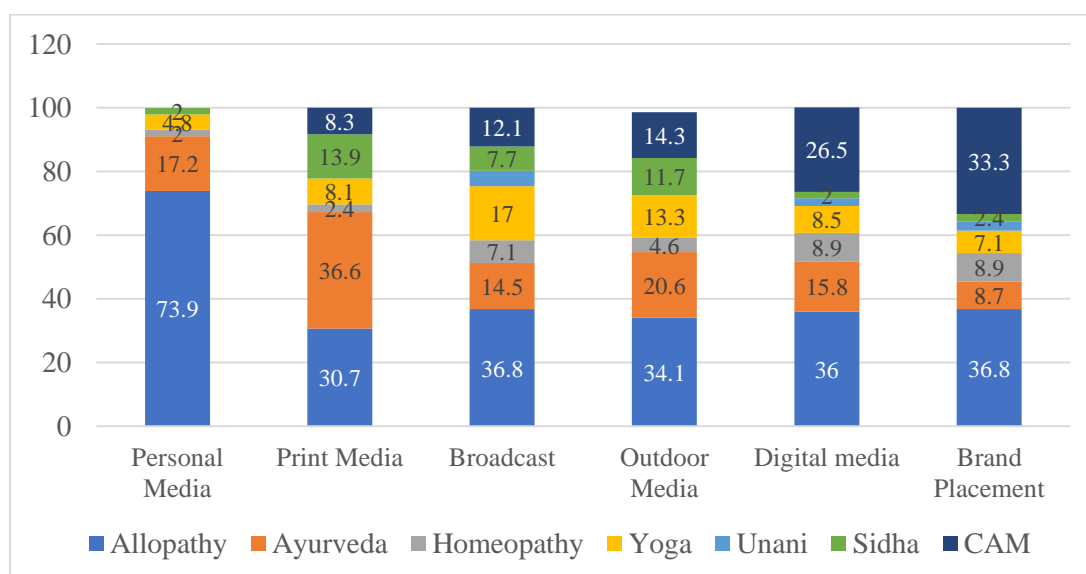
4.8% respondents admit personal media as primary source of information about Yoga. 8.1% get information from print media, 17.0% get information from broadcast, 13.3% get information from outdoor media, 8.5% gain information from digital media and 7.1% get information from brand placement.

4.8% get information from broadcast about Unani, 2.4 get information from outdoor media, 2.8% gain information from digital media.

2.0% respondents admit personal media as primary source of information about Siddha. 13.9% get information from print media, 17.7% get information from broadcast, 11.7% get information from outdoor media, 2.0% gain information from digital media and 2.4% get information from brand placement.

8.3% get information from print media about CAM, 12.1% get information from broadcast, 14.1% get information from outdoor media, 26.5% gain information from digital media and 33.3% get information from brand placement.

The chi Square value for difference in sources of getting information about different system of medicine is 154.20, which is significant at .01 level. Hence it is concluded that respondent come across different sources of information to get information about different systems of medicine.



**Figure 4.6: The source of information about different systems of medicine**

#### 4.8 REGULARITY OF INTERNET USE AND SEARCH FOR HEALTH-RELATED INFORMATION ONLINE

**Table 4.8: The use of internet by the respondents for general purpose and for health-related activities**

	Use of Internet	Regularity of Internet Use for Health-Related Websites
Rarely	20.8	20.6
Once a month	21.2	14.9
Few times a month	8.9	19.0
Once a week	2.4	7.5
Few times a week	14.3	21.2
Once a day	12.1	4.0
Several times a day	20.4	12.9
<b>Chi Square : 14.48</b>		<b>Significance : 000</b>

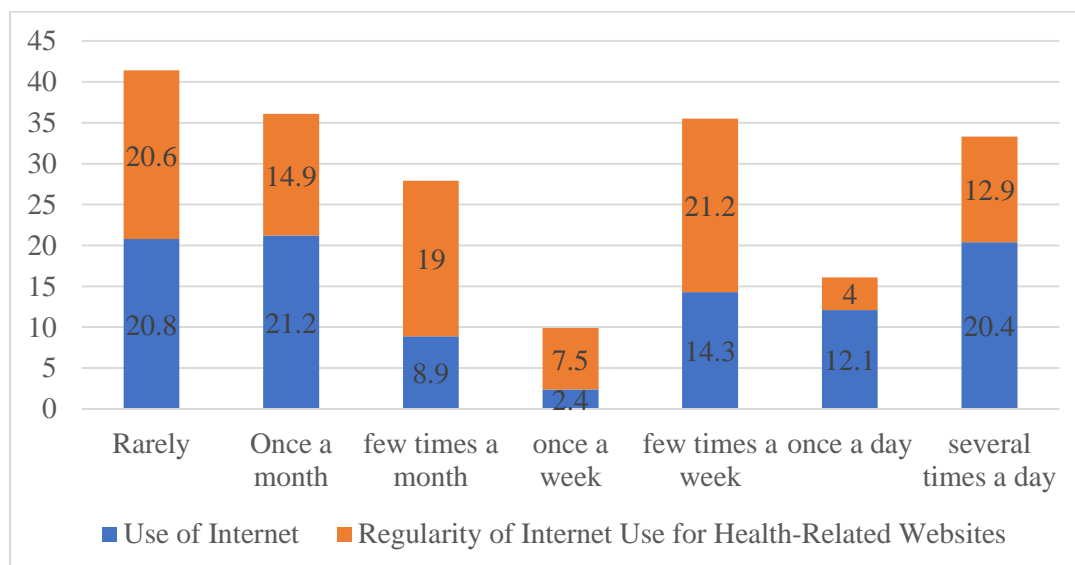
(Source: Primary Data, computed by the Author)

Table 4.8 shows that 20.8% respondents rarely use internet. 21.2% use once a month, 8.9% uses few times in a month, 2.4% uses once a week, 14.3% uses few times in a week, 12.1% uses once a day and 20.4% uses several times in a day.

20.6% respondents rarely use internet for health-related issues. 14.9% use once a month for health-related issues, 19.0% uses few times in a month for health-related issues, 7.5% uses once a week for health-related issues, 21.2% uses few times in a week for health-related issues, 4.0% uses once a day for health-related issues and 12.9% uses several times in a day for health related activities.

The chi square value for difference between use of internet and use of internet for health-related activities is 14.48, which is significant at .01 level of significance.

Hence it is concluded that there is significant difference in use of internet for general purpose and for health-related services.



**Figure 4.7: The use of internet by the respondents for general purpose and for health-related activities**

#### 4.8.1 Online buying behaviour of the respondents in context to healthcare products

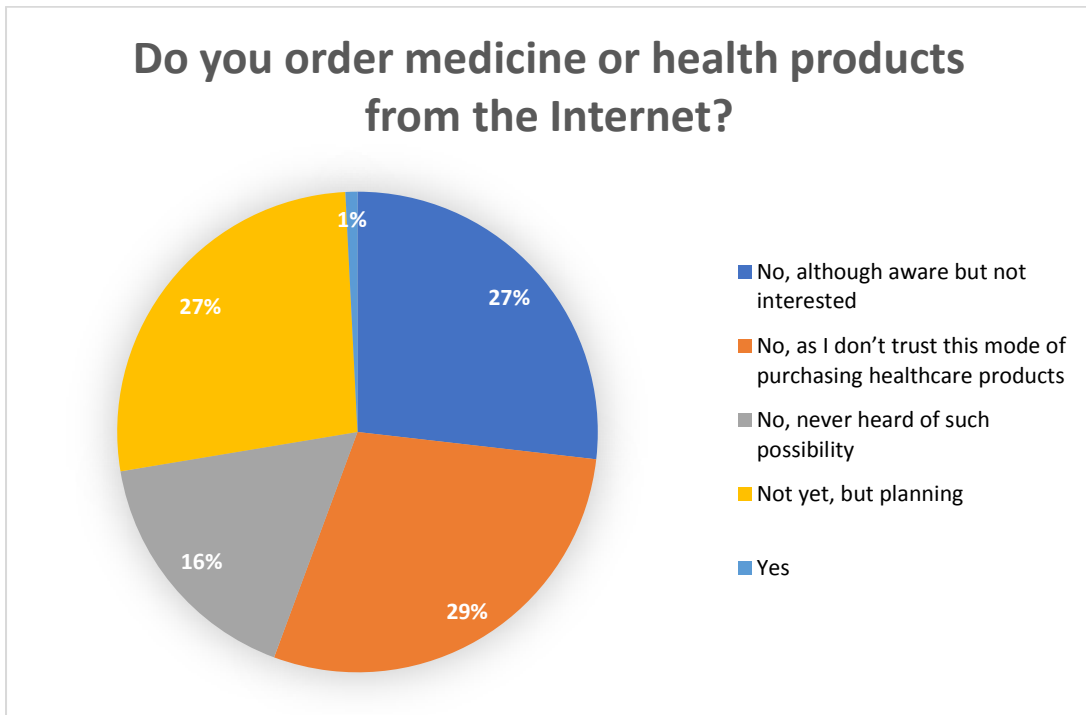
**Table 4.9: The use of internet for ordering healthcare products from internet**

Response	Frequency	Percent
No, although aware but not interested	133	26.8
No, as I don't trust this mode of purchasing healthcare products	143	28.8
No, never heard of such possibility	83	16.7
Not yet, but planning	133	26.8
Yes	4	0.8
Total	496	100.0

(Source: Primary Data, computed by the Author)



Table 4.9 shows that 99.2 % respondents do not order health products from internet. Only 0.8% people uses internet to order health products. Nevertheless, 26.8% respondents are planning to order healthcare products from internet.



**Figure 4.8: The use of internet for ordering healthcare products from internet**

#### 4.8.2 Influence of various reasons for buying medical/healthcare products online

Table 4.10 shows that 72.4% of participants doesn't participated in this study. 27.6% participated and 4.4% respondents out of them find it extremely influential for saving the time. 3.0 % find it very influential, 1.45% find it moderately influential, 5.4% are neutral about the reason. 5.8% finds it not so influential, 7.9% find it not at all influential.

14.1% respondents find it extremely influential as cheap method. 0.8 % find it very influential, none find it moderately influential, 2.8% are neutral about the reason. 3.2% finds it not so influential, 6.7% find it not at all influential.

9.1% respondents find it extremely influential for comparing information. 6.3 % find it very influential, 1.4% find it moderately influential, 5.2% are neutral about the reason. 3.2% finds it not so influential, 2.4% find it not at all influential.

Table 4.10: The influence of various reasons on buying medical/healthcare products online

	Time Saving	Cheap	Comparative Information	Convenient	More Details	Embarrassment	Availability	Prescription	Variety	Better Offer	Better Quality
Extremely Influential	4.4	14.1	9.1	9.9	9.9	14.3	9.5	9.9	10.3	10.7	10.5
Very Influential	3.0	.8	6.3	4.6	5.8	1.2	8.7	3.0	2.6	4.4	1.2
Moderately Influential	1.4	–	1.4	4.0	.4	–	–	2.4	2.8	1.0	3.4
Neutral	5.4	2.8	5.2	.4	2.2	4.0	1.0	3.4	4.8	3.4	3.8
Slightly Influential	0	0	0	0	0	0	0	0	0	0	0
Not so Influential	5.8	3.2	3.2	3.4	1.8	2.4	3.2	3.8	3.4	4.0	3.0
Not at all Influential	7.9	6.7	2.4	5.2	7.5	5.6	5.2	5.0	4.4	4.0	6.7
Not applicable	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4

(Source: Primary Data, computed by the Author)

9.9% respondents find it extremely influential as convenient. 4.6 % find it very influential, 4.0 find it moderately influential, 0.4% are neutral about the reason. 3.4% finds it not so influential, 5.2% find it not at all influential.

9.9% respondents find it extremely influential for getting more details. 5.8 % find it very influential, 0.4% find it moderately influential, 2.2% are neutral about the reason. 1.8% finds it not so influential, 7.5% find it not at all influential.

14.3% respondents find it extremely influential to avoid embarrassment by communicating with local seller. 1.2 % find it very influential, none find it moderately influential, 4.0% are neutral about the reason. 2.4% finds it not so influential, 5.6% find it not at all influential.

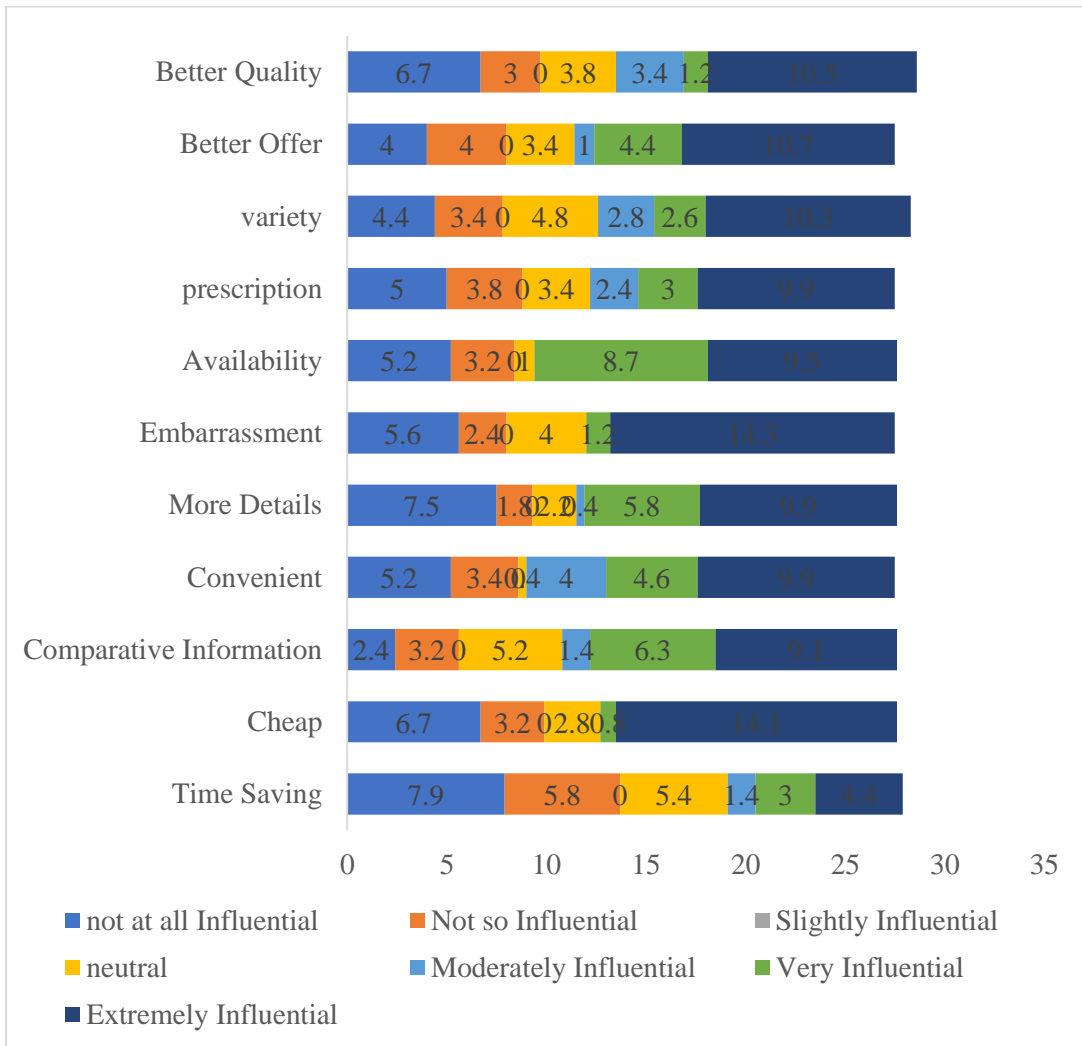
9.5% respondents find it extremely influential in terms of availability. 8.7 % find it very influential, none find it moderately influential, 1.0% are neutral about the reason. 3.2% finds it not so influential, 5.2% find it not at all influential.

9.9% respondents find it extremely influential for procuring without prescription. 3.0 % find it very influential, 2.4% find it moderately influential, 3.4% are neutral about the reason. 3.8% finds it not so influential, 5.0% find it not at all influential.

10.3% respondents find it extremely influential due to availability of wide variety of products. 2.6 % find it very influential, none find it moderately influential, 2.4% are neutral about the reason. 3.4% finds it not so influential, 4.4% find it not at all influential.

10.7% respondents find it extremely influential due better offers and deals. 4.4 % find it very influential, 1.0% find it moderately influential, 3.4% are neutral about the reason. 4.0% finds it not so influential, 4.0% find it not at all influential.

10.5% respondents find it extremely influential due to better quality. 1.2 % find it very influential, 3.4% find it moderately influential, 3.8% are neutral about the reason. 3.0% finds it not so influential, 6.7% find it not at all influential.



**Figure 4.9: The influence of various reasons on buying medical/healthcare products online**

#### **4.9 OPINION ABOUT THE EFFECTIVENESS OF TREATMENT IN THE DIFFERENT SYSTEMS OF MEDICINE**

Table 4.11 shows that 36.9% found allopathy as extremely effective for treatment. 26.2% found allopathy as very effective for treatment. 6.9% found allopathy as moderately effective for treatment. 4.4% are neutral about effectiveness of allopathy. 4.4% found allopathy as slightly effective for treatment. 4.4% found allopathy as not so effective for treatment.

41.9% found Ayurveda as extremely effective for treatment. 29.0% found Ayurveda as very effective for treatment. 22.4% found Ayurveda as moderately effective for treatment. 2.4% are neutral about effectiveness of Ayurveda. 0.8% found Ayurveda as slightly effective for treatment. 3.4% found Ayurveda as not so effective for treatment.

**Table 4.11: The opinion about the effectiveness of treatment in the different systems of medicine**

	Allopathy	Ayurveda	Homeopathy	Unani	Siddha	Yoga	CAM
Extremely effective	36.9	41.9	30.4	18.5	4.8	29.5	22.4
Very effective	26.2	29.0	36.9	5.8	3.4	31.9	12.1
Moderately effective	9.9	22.4	17.9	14.7	6.5	14.5	37.5
Neutral	9.4	2.4	10.7	43.5	35.1	10.3	6.7
Slightly effective	4.4	.8	2.6	13.3	13.3	.4	9.5
Not so effective	9.4	3.4	2.4	7.1	14.7	3.2	11.9
Not at all effective	0	0	0	0	15.7	0	0
<b>Chi Square : 238.87</b>		<b>Significance : .000</b>					

(Source: Primary Data, computed by the Author)

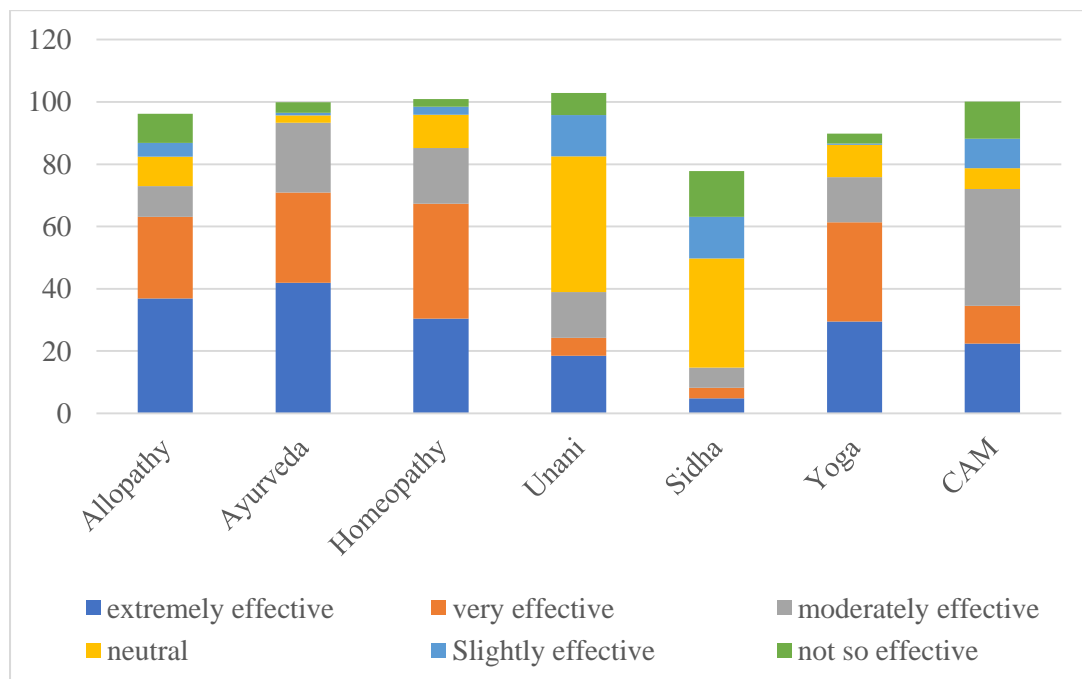
30.4% found Homeopathy as extremely effective for treatment. 36.9% found Homeopathy as very effective for treatment. 17.9% found Homeopathy as moderately effective for treatment. 10.7% are neutral about effectiveness of Homeopathy. 2.6% found Homeopathy as slightly effective for treatment. 2.4% found Homeopathy as not so effective for treatment.

18.5% found Unani as extremely effective for treatment. 5.8% found Unani as very effective for treatment. 14.7% found Unani as moderately effective for treatment. 43.5% are neutral about effectiveness of Unani. 13.3% found Unani as slightly effective for treatment. 7.1% found Unani as not so effective for treatment.

4.8% found Siddha as extremely effective for treatment. 3.4% found Siddha as very effective for treatment. 6.5% found Siddha as moderately effective for treatment. 35.1% are natural about effectiveness of Siddha. 13.3% found Siddha as slightly effective for treatment. 14.7% found Siddha as not so effective for treatment and 15.7% found not at all effective.

29.5% found Yoga as extremely effective for treatment. 31.9% found Yoga as very effective for treatment. 14.5% found Yoga as moderately effective for treatment. 10.3% are natural about effectiveness of Yoga. 0.4% found Yoga as slightly effective for treatment. 3.2% found Yoga as not so effective for treatment.

The chi square value for difference in Opinion about the effectiveness of treatment in the different system of medicine is 238.87, which is significant. Hence it is concluded that there is significant difference in opinion about the effectiveness of treatment in the different system of medicine.



**Figure 4.10 : The opinion about the effectiveness of treatment in the different systems of medicine**

#### 4.10 PREFERENCE FOR DIFFERENT SYSTEMS OF MEDICINE IN MENTIONED MEDICAL AILMENTS

Table 4.12: The preference for different Systems of medicine in various medical ailments

Disorder	Allopathic	Ayurveda	Homeopathic	Unani	Yoga and Naturopathy	Alternative Med	Can't Say
Infectious Diseases (Fever etc)	25.9	12.1	1.2	0.0	9.1	0.0	51.7
Cancer	31.7	4.2	0.2	2.8	0.0	5.5	55.6
Blood Disorders (Anemia etc)	33.3	12.5	0.2	0.0	2.6	0.0	51.3
Endocrine Disorders (Diabetes, Thyroid etc)	43.0	10.3	3.0	4.2	2.6	0.0	36.8
Mental and Behavioral (Stress etc)	34.1	6.3	0.0	37.0	3.0	2.6	17.0
Nervous System (Paralysis etc)	28.9	3.8	0.0	20.4	2.6	0.0	44.2
Eye	32.3	6.3	0.0	0.0	5.7	0.0	55.8
Ear, Nose, Throat	26.5	9.5	3.0	2.8	2.8	2.8	52.5
Circulatory System (Heart attack etc)	24.2	6.5	0.0	5.9	2.8	5.1	55.6
Respiratory System (Asthma etc)	31.1	12.7	0.2	18.4	0.0	0.0	37.6
Digestive System (Gas/Acidity etc)	43.6	20.0	3.4	17.0	2.2	0.0	13.7

Disorder	Allopathic	Ayurveda	Homeopathic	Unani	Yoga and Naturopathy	Alternative Med	Can't Say
Skin Diseases	48.9	21.2	0.0	0.0	0.0	0.0	29.9
Musculoskeletal System (Joint Pain etc)	39.4	7.1	0.0	19.8	2.6	0.0	31.1
Genitourinary System (Kidney, Stone etc)	32.1	8.9	3.0	0.0	0.0	5.1	50.9
Pregnancy and Child Birth	21.0	6.5	0.2	0.0	0.0	10.7	61.6
New born disorders	24.2	0.6	0.0	5.5	0.0	13.5	56.2
Congenital Diseases (By birth)	20.4	6.7	2.8	0.0	0.0	11.1	59.0
Nonspecific signs and symptoms	26.3	0.6	2.8	5.1	8.7	13.7	42.8
Injury (internal) and Poisoning	23.8	0.6	2.8	0.0	0.0	0.0	72.7
Road Traffic accidents and other external injuries	15.8	0.6	2.8	0.0	2.8	0.0	78.0
General health examination and investigations	26.5	11.1	0.2	5.7	0.0	0.0	56.6
New diseases of unknown reasons	18.2	2.6	2.8	5.7	10.1	8.5	52.1
<b>Chi Sq. : 786.10</b>				<b>Significance : .000</b>			

(Source: Primary Data, computed by the Author)



Table 4.12 shows that 25.9% prefer Allopathy for infectious diseases. 12.1% prefer Ayurveda for infectious diseases. 1.2% prefer Homeopathy for infectious diseases. 9.1% prefer Unani for infectious diseases. none prefer Yoga and Naturopathy for infectious diseases. none prefer Alternative medicine for infectious diseases. 51.7% are not able to express their preference for infectious diseases.

31.7% prefer Allopathy for cancer. 4.2% prefer Ayurveda for cancer. 0.2% prefer Homeopathy for cancer. 2.8% prefer Unani for cancer. none prefer Yoga and Naturopathy for cancer. 5.5% prefer Alternative medicine for cancer. 55.6% are not able to express their preference for cancer.

33.3% prefer Allopathy for blood disorders. 12.5% prefer Ayurveda for blood disorders. 0.2% prefer Homeopathy for blood disorders. none prefer Unani for blood disorders. 2.6% prefer Yoga and Naturopathy for blood disorders. none prefer Alternative medicine for blood disorders. 51.3% are not able to express their preference for blood disorders.

43.0% prefer Allopathy for Endocrine disorders. 10.3% prefer Ayurveda for Endocrine disorders. 3.0% prefer Homeopathy for Endocrine disorders. 4.2% prefer Unani for Endocrine disorders. 2.6% prefer Yoga and Naturopathy for Endocrine disorders. none prefer Alternative medicine for Endocrine disorders. 36.8% are not able to express their preference for Endocrine disorders.

34.1% prefer Allopathy for mental and behavioral disorders. 6.3% prefer Ayurveda for mental and behavioral disorders. none prefer Homeopathy for mental and behavioral disorders. 37.0% prefer Unani for mental and behavioral disorders. 3.0% prefer Yoga and Naturopathy for mental and behavioral disorders. 2.6% prefer Alternative medicine for mental and behavioral disorders. 17.0% are not able to express their preference for mental and behavioral disorders.

28.9% prefer Allopathy for nervous system disorders. 3.8% prefer Ayurveda for nervous system disorders. none prefer Homeopathy for nervous system disorders. 20.4% prefer Unani for nervous system disorders. 2.6% prefer Yoga and Naturopathy for nervous system disorders. none prefer Alternative medicine for

nervous system disorders. 44.2% are not able to express their preference for nervous system disorders.

32.3% prefer Allopathy for eyes treatment. 6.3% prefer Ayurveda for eyes treatment. none prefer Homeopathy for eyes treatment. none prefer Unani for eyes treatment. 5.7% prefer Yoga and Naturopathy for eyes treatment. none prefer Alternative medicine for eyes treatment. 55.8% are not able to express their preference for eyes treatment.

26.5% prefer Allopathy for ear, nose, throat treatment. 9.5% prefer Ayurveda for ear, nose, throat treatment. 3.0% prefer Homeopathy for ear, nose, throat treatment. 2.8% prefer Unani for ear, nose, throat treatment. 2.8% prefer Yoga and Naturopathy for ear, nose, throat treatment. 2.8% prefer Alternative medicine for ear, nose, throat treatment. 52.5% are not able to express their preference for ear, nose, throat treatment.

24.2% prefer Allopathy for circulatory system disorders. 6.5% prefer Ayurveda for circulatory system disorders. none prefer Homeopathy for circulatory system disorders. 5.9% prefer Unani for circulatory system disorders. 2.8% prefer Yoga and Naturopathy for circulatory system disorders. 5.1% prefer Alternative medicine for circulatory system disorders. 55.6% are not able to express their preference for circulatory system disorders.

31.1% prefer Allopathy for respiratory system related diseases. 12.7% prefer Ayurveda for respiratory system related diseases. 0.2% prefer Homeopathy for respiratory system related diseases. 18.4% prefer Unani for respiratory system related diseases. none prefer Yoga and Naturopathy for respiratory system related diseases. none prefer Alternative medicine for respiratory system related diseases. 37.6% are not able to express their preference for respiratory system related diseases.

43.6% prefer Allopathy for Digestive system disorders. 20.0% prefer Ayurveda for Digestive system disorders. 3.4% prefer Homeopathy for Digestive system disorders. 17.0% prefer Unani for Digestive system disorders. 2.2% prefer Yoga and Naturopathy for Digestive system disorders. none prefer Alternative medicine for

Digestive system disorders. 1375% are not able to express their preference for Digestive system disorders.

48.9% prefer Allopathy for skin diseases. 21.2% prefer Ayurveda for skin diseases. none prefer Homeopathy for skin diseases. none prefer Unani for skin diseases. none prefer Yoga and Naturopathy for skin diseases. none prefer Alternative medicine for skin diseases. 29.9% are not able to express their preference for skin diseases.

39.4% prefer Allopathy for Musculoskeletal system. 7.1% prefer Ayurveda for Musculoskeletal system. none prefer Homeopathy for Musculoskeletal system. 19.8% prefer Unani for Musculoskeletal system. 2.6% prefer Yoga and Naturopathy for Musculoskeletal system. none% prefer Alternative medicine for Musculoskeletal system. 31.1% are not able to express their preference for Musculoskeletal system.

32.1% prefer Allopathy for Genitourinary System diseases. 8.9% prefer Ayurveda for Genitourinary System diseases. 3.0% prefer Homeopathy for Genitourinary System diseases. 0.0% prefer Unani for Genitourinary System diseases. none prefer Yoga and Naturopathy for Genitourinary System diseases. 5.1% prefer Alternative medicine for Genitourinary System diseases. 50.9% are not able to express their preference for Genitourinary System diseases.

21.0% prefer Allopathy for pregnancy and child birth. 6.5% prefer Ayurveda for pregnancy and child birth. 0.2% prefer Homeopathy for pregnancy and child birth. none prefer Unani for pregnancy and child birth. none prefer Yoga and Naturopathy for pregnancy and child birth. 10.7% prefer Alternative medicine for pregnancy and child birth. 61.6% are not able to express their preference for pregnancy and child birth.

24.2% prefer Allopathy for new born disorders. 0.6% prefer Ayurveda for new born disorders. none prefer Homeopathy for new born disorders. 5.5% prefer Unani for new born disorders. none prefer Yoga and Naturopathy for new born disorders. 13.5% prefer Alternative medicine for new born disorders. 51.2% are not able to express their preference for new born disorders.

20.4% prefer Allopathy for Congenital diseases. 6.7% prefer Ayurveda for Congenital diseases. 2.8% prefer Homeopathy for Congenital diseases. none prefer

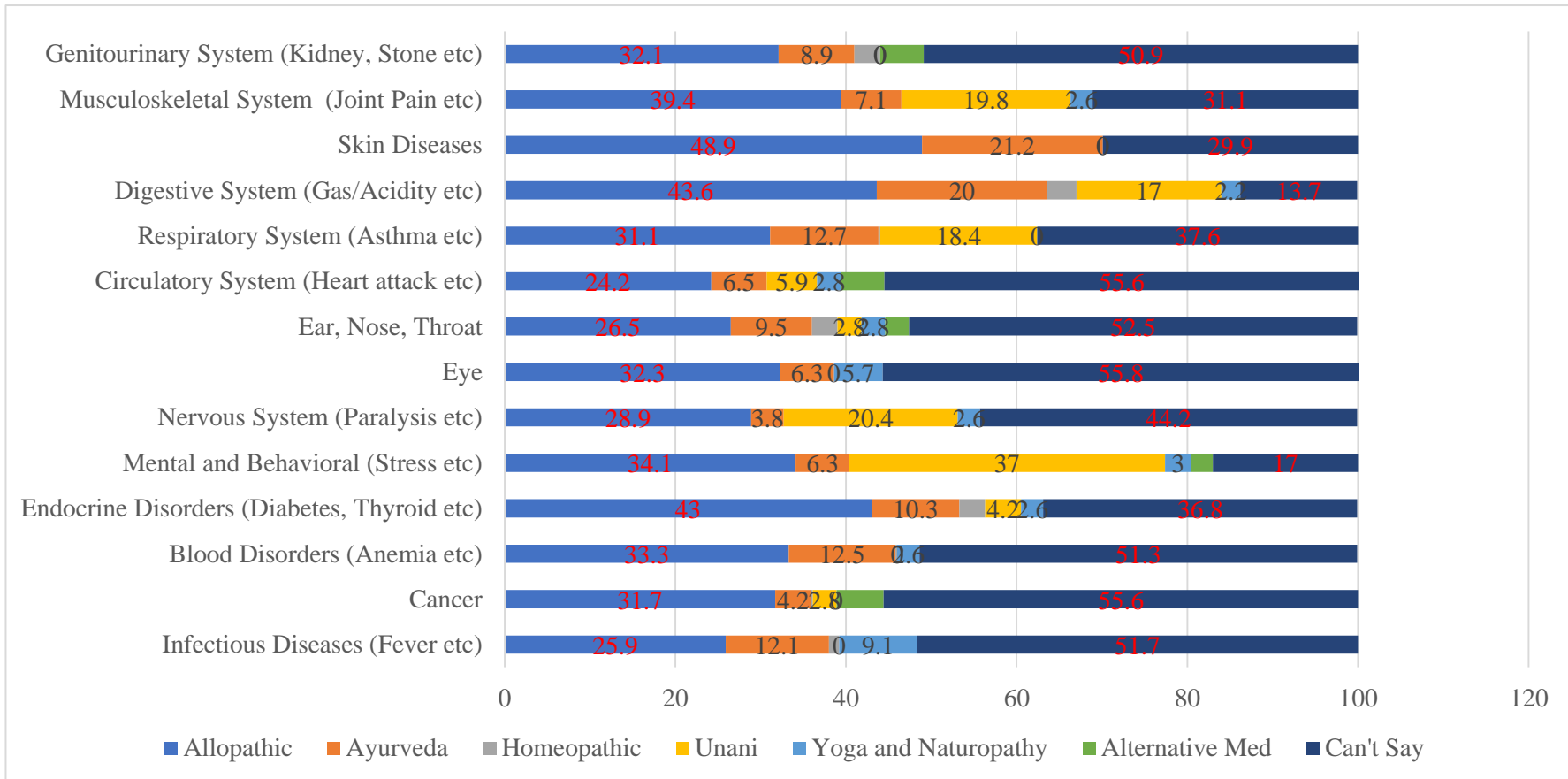
Unani for Congenital diseases. none prefer Yoga and Naturopathy for Congenital diseases. 11.1% prefer Alternative medicine for Congenital diseases. 59.0% are not able to express their preference for Congenital diseases.

26.2% prefer Allopathy for non-specific signs and symptoms. 0.6% prefer Ayurveda for non-specific signs and symptoms. 2.8% prefer Homeopathy for non-specific signs and symptoms. 5.1% prefer Unani for non-specific signs and symptoms. 8.7% prefer Yoga and Naturopathy for non-specific signs and symptoms. 13.7% prefer Alternative medicine for non-specific signs and symptoms. 42.8% are not able to express their preference for non-specific signs and symptoms.

23.8% prefer Allopathy for internal injury and poisoning. 0.6% prefer Ayurveda for internal injury and poisoning. 2.8% prefer Homeopathy for internal injury and poisoning. none prefer Unani for internal injury and poisoning. none prefer Yoga and Naturopathy for internal injury and poisoning. none prefer Alternative medicine for internal injury and poisoning. 72.7% are not able to express their preference for internal injury and poisoning.

15.8% prefer Allopathy for road traffic accidents and other external injuries. 0.6% prefer Ayurveda for road traffic accidents and other external injuries. 2.8% prefer Homeopathy for road traffic accidents and other external injuries. none prefer Unani for road traffic accidents and other external injuries. 2.8% prefer Yoga and Naturopathy for road traffic accidents and other external injuries. none prefer Alternative medicine for road traffic accidents and other external injuries. 78.0% are not able to express their preference for road traffic accidents and other external injuries.

26.5% prefer Allopathy for general health examination and investigations. 11.1% prefer Ayurveda for general health examination and investigations. 0.2% prefer Homeopathy for general health examination and investigations. 5.7% prefer Unani for general health examination and investigations. none prefer Yoga and Naturopathy for general health examination and investigations. None prefer Alternative medicine for general health examination and investigations. 56.2% are not able to express their preference for general health examination and investigations.



**Figure 4.11: The preference for different Systems of medicine in various medical ailments**

18.1% prefer Allopathy for new diseases of unknown reasons. 2.6% prefer Ayurveda for new diseases of unknown reasons. 2.8% prefer Homeopathy for new diseases of unknown reasons. 5.7% prefer Unani for new diseases of unknown reasons. 10.1% prefer Yoga and Naturopathy for new diseases of unknown reasons. 8.5% prefer Alternative medicine for new diseases of unknown reasons. 52.1% are not able to express their preference for new diseases of unknown reasons.

The chi Square value for difference in Preference for different Systems of medicine in mentioned medical ailments is 786.10, which is significant at .01 level. Hence it is concluded that there is significant difference in Preference for different Systems of medicine in mentioned medical ailments.

#### 4.11 RELATIONSHIP BETWEEN CONVENIENCE OF ACCESSIBILITY AND FAMILIARITY FOR DIFFERENT SYSTEMS OF MEDICINE

**Table 4.13: Relationship between accessibility and familiarity for different systems of medicine**

	Correlation with Accessibility of Same system of Medicine	
	r	Sig.
Familiarity about: Allopathy	.274	.000
Familiarity about: Ayurveda	.080	.079
Familiarity about: Homeopathy	.230	.000
Familiarity about: Unani	.178	.000
Familiarity about: Siddha	.037	.419
Familiarity about: Yoga	.142	.002
Familiarity about: CAM	.308	.000

(Source: Primary Data, computed by the Author)

Table 4.13 shows that the correlation between accessibility and familiarity for Allopathy is 0.274, which is significant at .01 level. It means accessibility and familiarity are positively correlated for Allopathy.

The correlation between accessibility and familiarity for Ayurveda is 0.080, which is not significant. It means accessibility and familiarity are not correlated for Ayurveda.

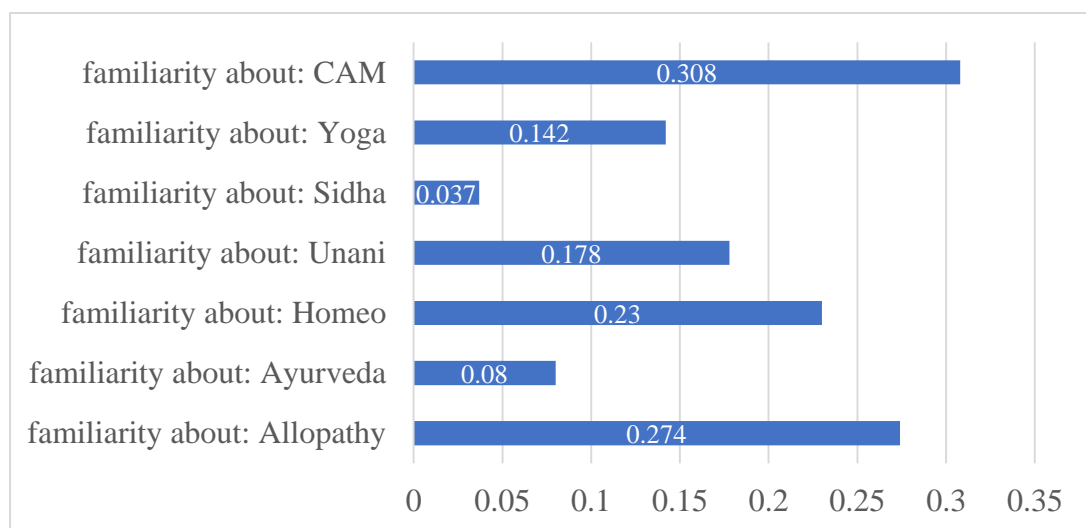
The correlation between accessibility and familiarity for Homeopathy is 0.230, which is significant at .01 level. It means accessibility and familiarity are positively correlated for Homeopathy.

The correlation between accessibility and familiarity for Unani is 0.178, which is significant at .01 level. It means accessibility and familiarity are positively correlated for Unani.

The correlation between accessibility and familiarity for Siddha is 0.037, which is not significant. It means accessibility and familiarity are not correlated for Siddha.

The correlation between accessibility and familiarity for Yoga is 0.142, which is significant at .01 level. It means accessibility and familiarity are positively correlated for Yoga.

The correlation between accessibility and familiarity for CAM is 0.308, which is significant at .01 level. It means accessibility and familiarity are positively correlated for CAM.



**Figure 4.12: Relationship between accessibility for different systems of medicine and familiarity**

#### 4.12 RELATIONSHIP BETWEEN OPINION ABOUT THE EFFECTIVENESS AND FAMILIARITY WITH DIFFERENT SYSTEMS OF MEDICINE

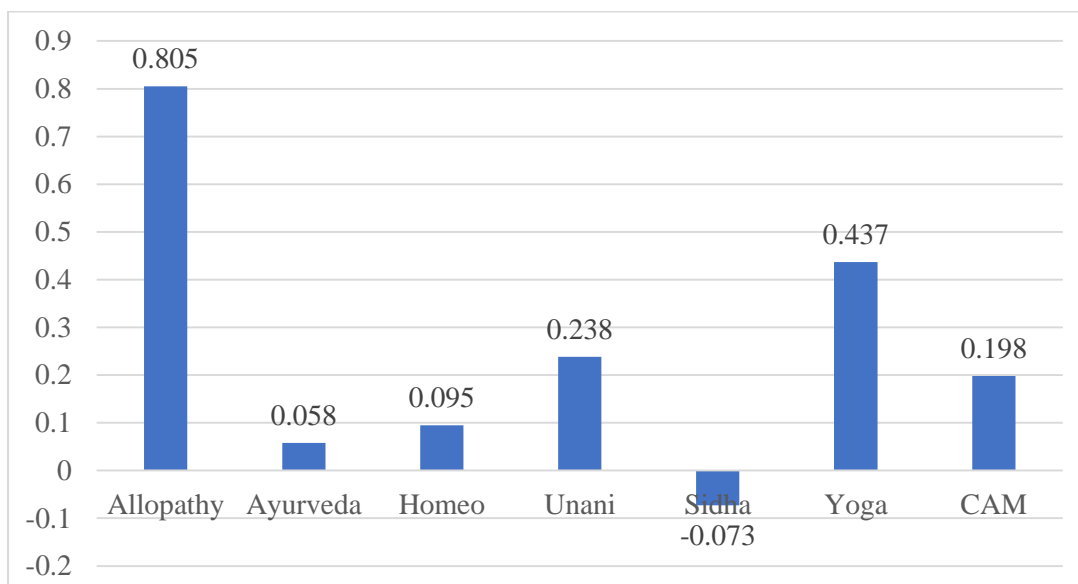
**Table 4.14: Relationship between opinion about the effectiveness and Familiarity with different systems of medicine**

	Familiarity about corresponding system of medicine	
	Pearson Correlation	Sig. (tailed)
Effectiveness of treatment in Allopathy	.805	.000
Effectiveness of treatment in Ayurveda	.058	.201
Effectiveness of treatment in Homeopathy	.095	.035
Effectiveness of treatment in Unani	.238	.000
Effectiveness of treatment in Siddha	-.073	.118
Effectiveness of treatment in Yoga	.437	.000
Effectiveness of treatment in CAM	.198	.000

(Source: Primary Data, computed by the Author)

The correlation between effectiveness and familiarity for Allopathy is 0.805, which is significant at .01 level. It means effectiveness and familiarity are positively correlated for Allopathy. The correlation between effectiveness and familiarity for Ayurveda is 0.058, which is not significant. It means effectiveness and familiarity are not correlated for Ayurveda. The correlation between effectiveness and familiarity for Homeopathy is 0.095 which is not significant. It means effectiveness and familiarity are not correlated for Homeopathy. The correlation between effectiveness and familiarity for Unani is 0.238, which is significant at .01 level. It means effectiveness and familiarity are positively correlated for Unani. The correlation between effectiveness and familiarity for Siddha is -0.073, which is not significant. It means effectiveness and familiarity are not correlated for Siddha. The correlation between effectiveness and familiarity for Yoga is 0.437, which is significant at .01 level. It means effectiveness and familiarity are positively correlated for Yoga. The correlation between effectiveness and familiarity for CAM is 0.198, which is significant at .01 level. It means effectiveness and familiarity are positively correlated for CAM.





**Figure 4.13: Relationship between opinion about the effectiveness with different systems of medicine and Familiarity**

#### 4.13 RELATIONSHIP BETWEEN USE OF INTERNET FOR HEALTH-RELATED ACTIVITIES AND FAMILIARITY ABOUT DIFFERENT SYSTEM OF MEDICINE

**Table 4.15: Correlation coefficients between use of internet for health-related activities and Familiarity about different system of medicine**

	Pearson Correlation	Sig. (2-tailed)
Familiarity about: Allopathy	-.040	.381
Familiarity about: Ayurveda	.102	.023
Familiarity about: Homeopathy	.084	.064
Familiarity about: Unani	-.152	.001
Familiarity about: Siddha	-.054	.232
Familiarity about: Yoga	.228	.000
Familiarity about: CAM	.059	.189

(Source: Primary Data, computed by the Author)

Table 4.15 shows that the correlation coefficient between Familiarity and use of internet for health-related activities for allopathy is -0.040, which is not significant. It means that Familiarity and use of internet for health related activities are not correlated significantly for allopathy.

The correlation coefficient between Familiarity and use of internet for health related activities for Ayurveda is 0.102, which is significant at .05 level. It means that Familiarity and use of internet for health related activities are correlated positively for Ayurveda.

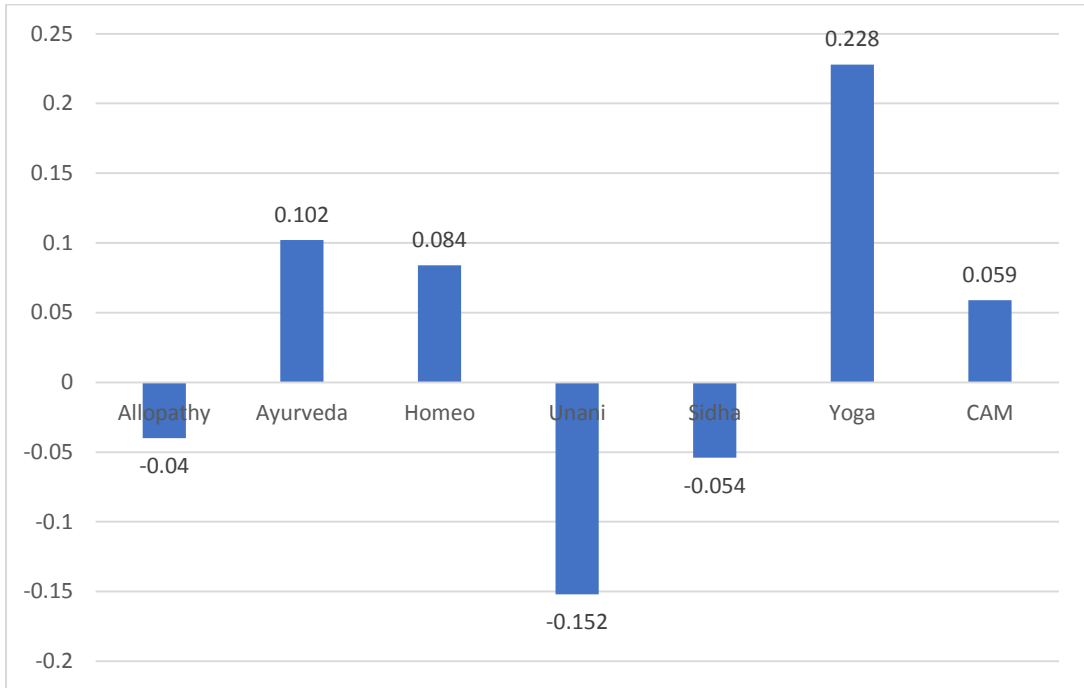
The correlation coefficient between Familiarity and use of internet for health related activities for Homeopathy is 0.084, which is not significant. It means that Familiarity and use of internet for health related activities are not correlated significantly for Homeopathy.

The correlation coefficient between Familiarity and use of internet for health related activities for Unani is -0.152, which is significant at .01 level. It means that Familiarity and use of internet for health related activities are correlated negatively for Unani.

The correlation coefficient between Familiarity and use of internet for health related activities for Siddha is -0.054, which is not significant. It means that Familiarity and use of internet for health related activities are not correlated significantly for Siddha.

The correlation coefficient between Familiarity and use of internet for health related activities for Yoga is 0.228, which is significant at .01 level. It means that Familiarity and use of internet for health related activities are correlated negatively for Yoga.

The correlation coefficient between Familiarity and use of internet for health related activities for CAM is 0.059, which is not significant. It means that Familiarity and use of internet for health related activities are not correlated significantly for CAM.



**Figure 4.14: Correlation coefficients between use of internet for health-related activities Familiarity about different system of medicine**

From above section, it can be seen that significant differences are found in different systems of medicine with respect to awareness, familiarity, accessibility, use of internet for health-related issues, source of information, opinion about effectiveness and for preferences in various categories of medical conditions. Hence it is concluded that the null hypothesis H<sub>01</sub> - There is no significant difference in awareness among respondents regarding different systems of medicine is rejected.

## CHAPTER – 5

# INFLUENTIAL FACTORS TO MAKE A CHOICE FOR DIFFERENT STYSTEMS OF MEDICINE

The present study focuses on different factors which control the preference of a client towards different systems of medicine. The questions were selected on the basis of the research review and were also tested through face validation, pilot studies and reliability testing. This study makes an attempt to analyses factors that have been earlier discussed in the review like cost of the treatment, minimal side effects, scientific approach, use of technology, convenience, popularity of the doctor/physician and comprehensive in approach etc. The demographic factors which can also influence the choice of different system of medicine are also considered.

Respondents were requested to rate these factors on a Likert scale with 1 = Not at all important to 7 = Extremely important. The variable for grouping was the system of medicine with respect to various statistical characteristics. It was also accompanied by other important factors used in the present study. The diagnostic tools applied in the research included:

Cluster Analysis: is used to make different segments of the population of Punjab based on their attributes and choices towards different system of medicine.

Factor Analysis: Out of all the factors listed after review of literature few of them will justify a lion's share of the dissimilarities, hence the mentioned factors are capable to be used to represent the variables which are original.

Discriminant Analysis: The dependent categorical variable's value (system of medicine) can be counted or modelled by using this analysis and is based on its association with one or more variables (cost of the treatment, minimal side effects, scientific approach, use of technology, convenience, popularity of the doctor/physician comprehensive in approach and demographic factors).

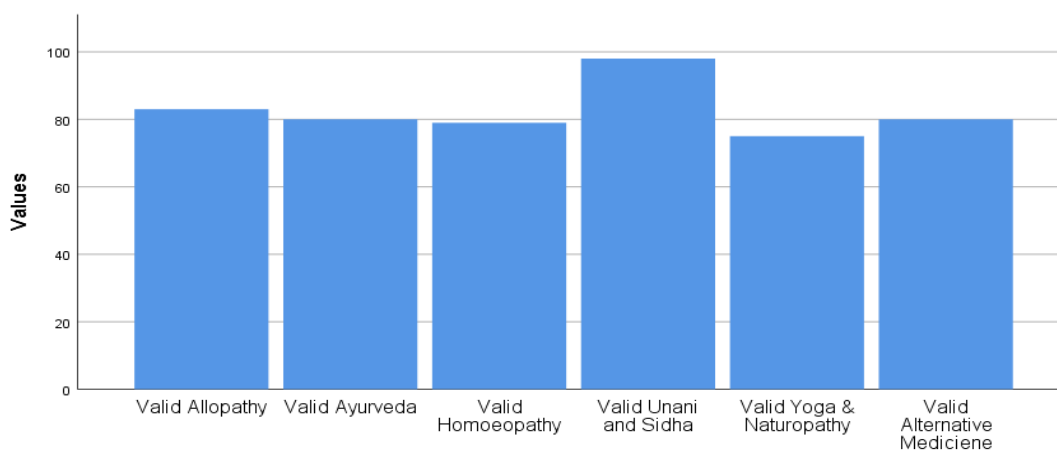
## 5.1 SYSTEM OF MEDICINE PREFERRED FOR THE MOST RECENT TREATMENT

**Table 5.1: System of medicine preferred for the most recent treatment**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Allopathy	83	16.7	16.8	16.8
	Ayurveda	80	16.1	16.2	32.9
	Homoeopathy	79	15.9	16.0	48.9
	Unani and Siddha	98	19.8	19.8	68.7
	Yoga & Naturopathy	75	15.1	15.2	83.4
	Alternative Medicine	81	16.4	16.0	100.0
	Total	496	100.0	100.0	
Missing	System	0	0		
Total		496	100.0		

(Source: Primary Data, computed by the Author)

Table 5.1 shows that 16.7% respondent preferred Allopathy for most recent treatment. 16.1% respondent preferred Ayurveda for most recent treatment. 15.9% respondent preferred homeopathy for most recent treatment. 19.8% respondent preferred Unani and Siddha for most recent treatment. 15.1% respondent preferred yoga and naturopathy for most recent treatment. 16.4% respondent preferred alternative medicine for most recent treatment.



**Figure 5.1: System of medicine preferred for the most recent treatment**

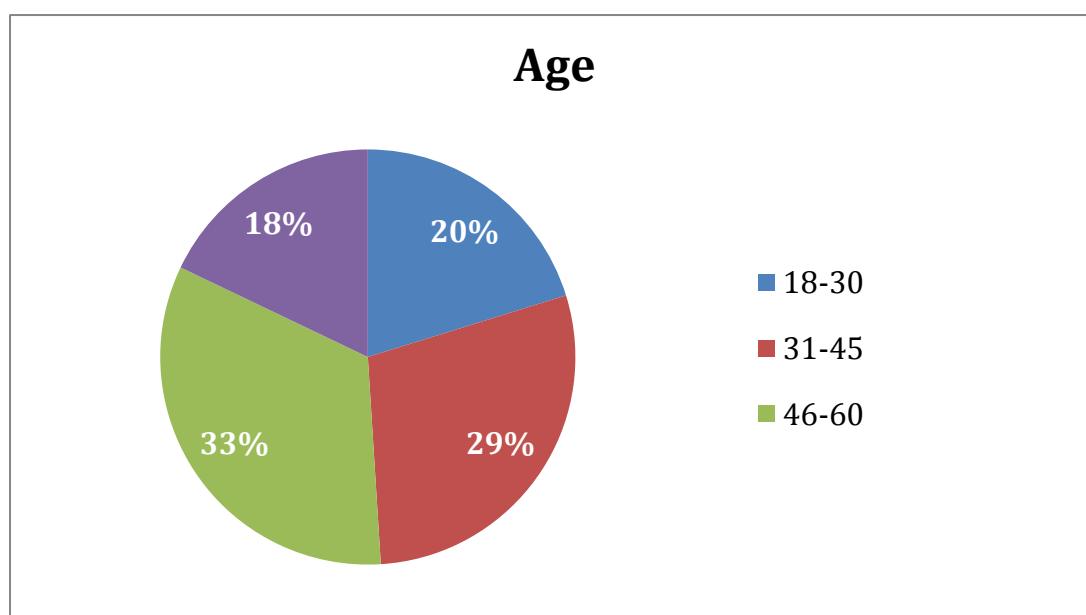
## 5.2 DEMOGRAPHIC PROFILE OF RESPONDENTS

Tables 5.2 to 5.16 shows demographic characteristics of the respondents with details of age, gender, religion, place of residence, occupation, marital status, type of family, dependent family members, number of children, income level, Education level, Health Insurance, average annual consultations with the doctor, district and geographical region.

**Table 5.2: Demographic Profile – Age**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-30	100	20.2	20.2	20.2
	31-45	143	28.8	28.9	49.1
	46-60	164	33.1	33.1	82.2
	Greater than 60	89	17.9	17.8	100.0
	Total	496	100.0	100.0	
Missing	System	0	0		
Total		496	100.0		

(Source: Primary Data, computed by the Author)



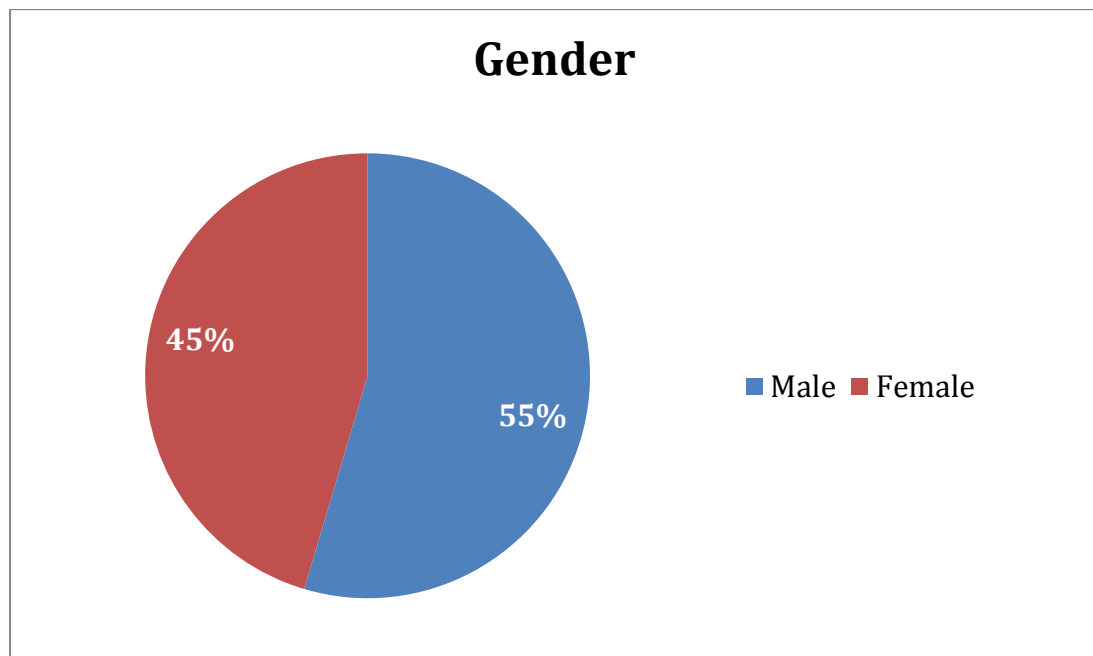
**Figure 5.2: Demographic Profile – Age**

As per Table 5.2, respondents in the age group of 46-60 years represented the maximum number with 33.1%, followed by the age group of 31-45 years with 28.8%, and by the age group 18-30 years with 6% and the age group of greater than 60 years with 17.9%.

**Table 5.3: Demographic Profile – Gender**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	271	54.6	54.7	54.7
	Female	225	45.4	45.3	100.0
	Total	496	100.0	100.0	
Missing	System	0	0		
Total		496	100.0		

(Source: Primary Data, computed by the Author)



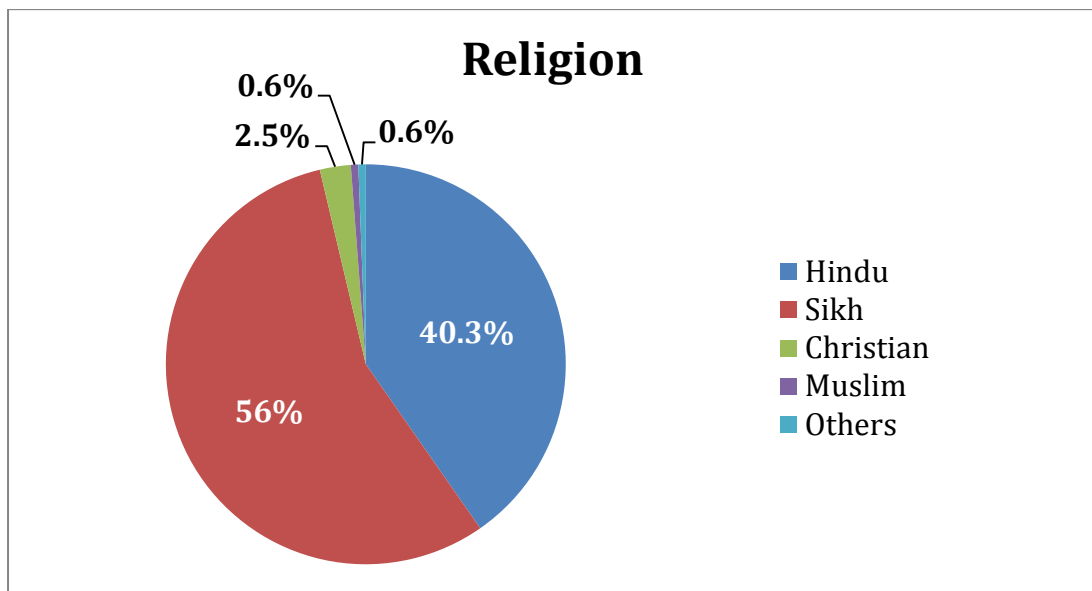
**Figure 5.3: Demographic Profile – Gender**

As per Table 5.3, 54.6% of respondents are male and 45.4% are female.

**Table 5.4: Demographic Profile – Religion**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Hindu	200	40.3	40.3	40.3
	Sikh	278	56.0	56.0	96.3
	Christian	12	2.5	2.5	98.8
	Muslim	3	.6	.6	99.4
	Others	4	.6	.6	100.0
	Total	496	100.0	100.0	
Missing	System	0	0		
Total		496	100.0		

(Source: Primary Data, computed by the Author)



**Figure 5.4: Demographic Profile – Religion**

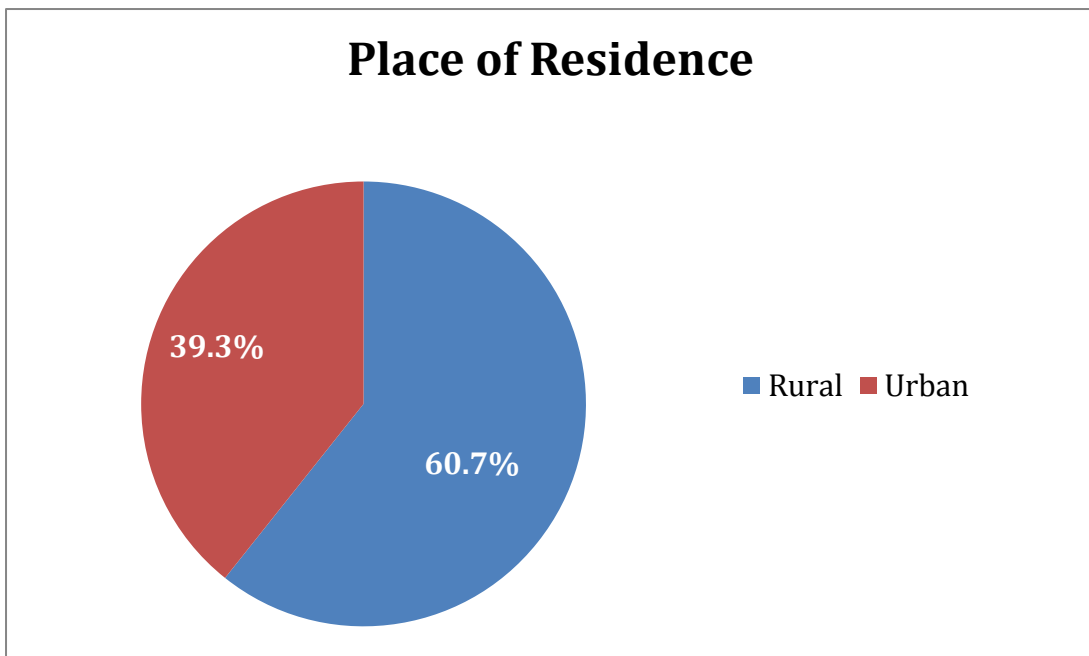
As per Table 5.4, respondents from Sikh religion represented the maximum number with 56%, followed by the Hindu religion with 40.3%, the Christian religion represented 2.5% and by the Muslim and other religions 0.6% each.



**Table 5.5: Demographic Profile – Place of Residence**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Rural	301	60.7	60.8	60.8
	Urban	195	39.3	39.3	100.0
	Total	496	100.0	100.0	
Missing	System	0	0		
Total		496	100.0		

(Source: Primary Data, computed by the Author)



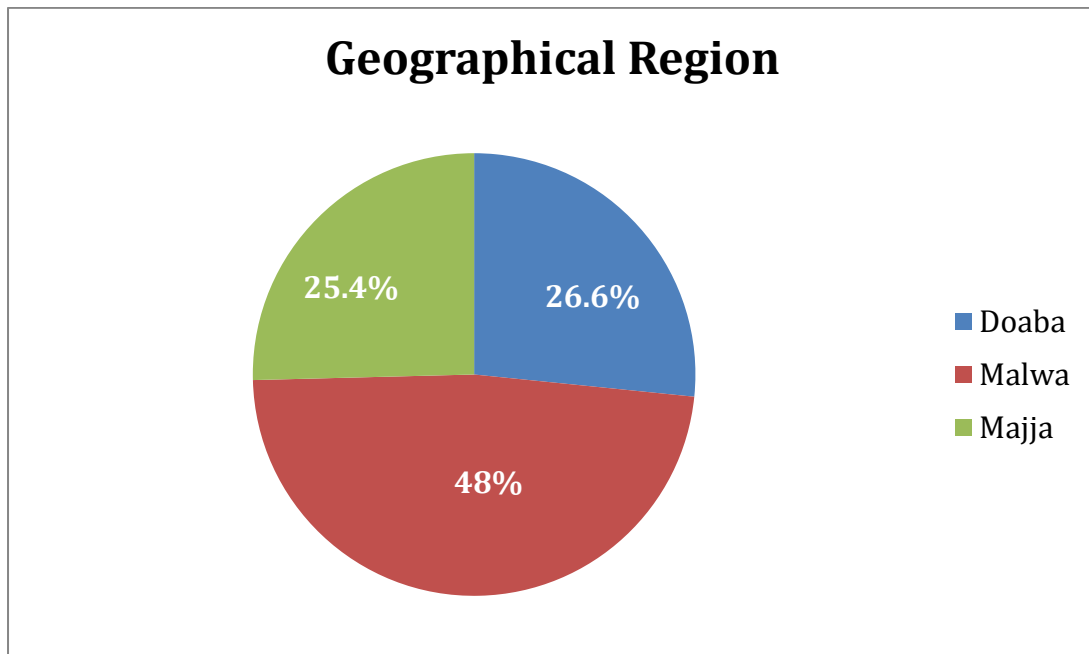
**Figure 5.5: Demographic Profile – Place of Residence**

As per Table 5.5, 60.7% of respondents are from rural areas and 39.3% are from urban areas.

**Table 5.6: Demographic Profile – Geographical Region**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Doaba	132	26.6	26.7	26.7
	Malwa	238	48.0	48.1	74.7
	Majja	126	25.4	25.3	100.0
	Total	496	100.0	100.0	
Missing	System	0	.0		
Total		496	100.0		

(Source: Primary Data, computed by the Author)



**Figure 5.6: Demographic Profile – Geographical Region**

As per Table 5.6, 48.0% of respondents are from Malwa region, followed by 26.6% from Doaba and 25.4% are from Majja region. District wise distribution of the respondents from the mentioned regions is given below in Table 5.7.

**Table 5.7: Demographic Profile – District of residence**

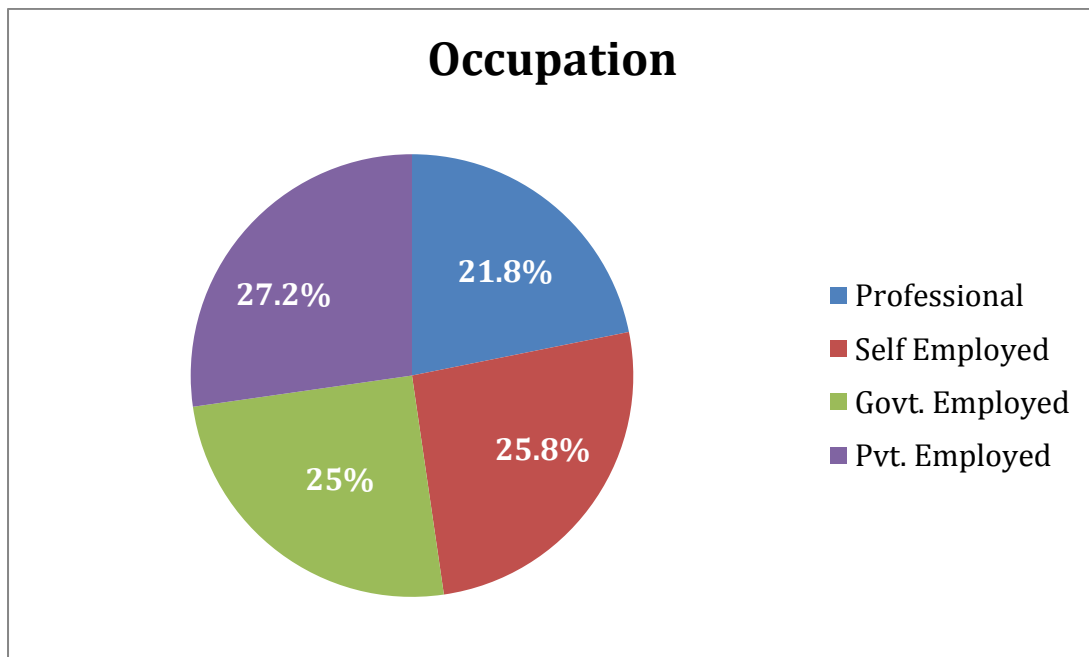
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Amritsar	35	7.1	7.1	7.3
	Barnala	17	3.4	3.4	10.7
	Bathinda	20	4.0	4.0	14.7
	Faridkot	13	2.6	2.6	17.3
	Fatehgarh Sahib	17	3.4	3.4	20.8
	Fazilka	16	3.2	3.2	24.0
	Firozpur	15	3.0	3.0	27.0
	Gurdaspur	29	5.8	5.8	32.9
	Hoshiarpur	35	7.1	7.1	39.9
	Jalandhar	30	6.0	6.0	46.0
	Kapurthala	36	7.3	7.3	53.2
	Ludhiana	17	3.4	3.4	56.7
	Mansa	14	2.8	2.8	59.5
	Moga	19	3.8	3.8	63.3
	Pathankot	33	6.7	6.7	70.0
	Patiala	23	4.6	4.6	74.6
	Rupnagar	13	2.6	2.6	77.2
	Sahibzada Ajit Singh Nagar	18	3.6	3.6	80.8
	Sangrur	16	3.2	3.2	84.1
	Shaheed Bhagat Singh Nagar	31	6.3	6.3	90.3
	Shri Muktsar Sahib	20	4.0	4.0	94.3
Tarn Taran	29	5.8	5.7	100.0	
Total	496	100.0	100.0		
Missing	0	0			

(Source: Primary Data, computed by the Author)

**Table 5.8: Demographic Profile – Occupation**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Professional	108	21.8	21.8	21.8
	Self Employed	128	25.8	25.9	47.7
	Govt Employed	124	25.0	25.1	72.7
	Pvt Employed	136	27.2	27.3	100.0
	Total	496	100.0	100.0	
Missing	System	0	0		
Total		496	100.0		

(Source: Primary Data, computed by the Author)



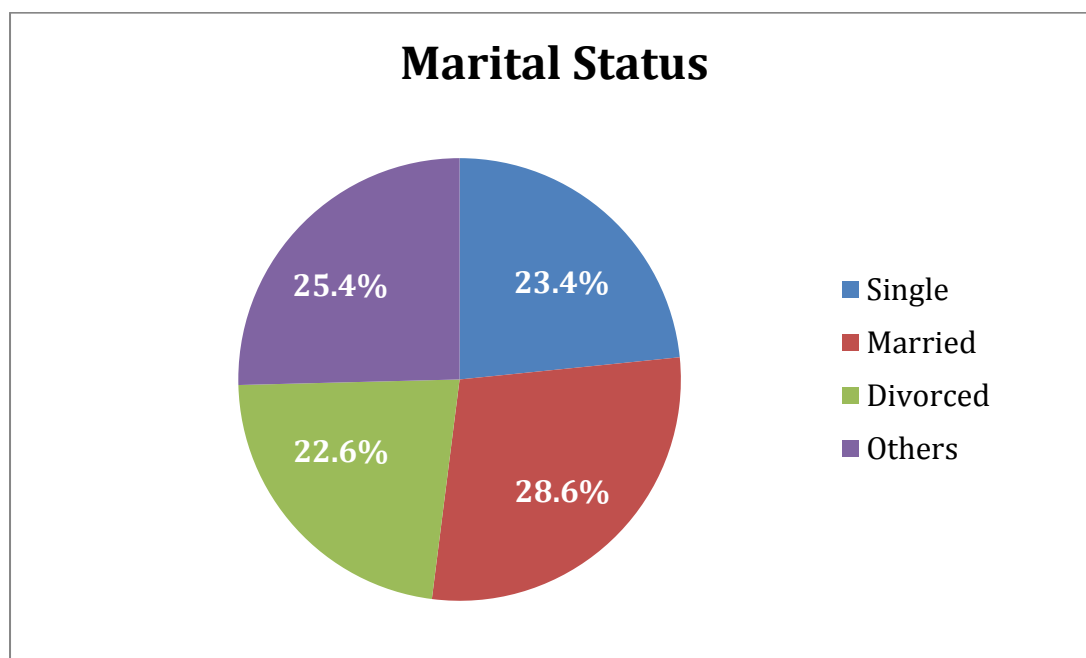
**Figure 5.7: Demographic Profile – Occupation**

As per Table 5.8, respondents in the private jobs represented the maximum number with 27.2%, followed by the self-employed with 25.8%, and by the government employees with 25% and the professionals with 21.8%.

**Table 5.9: Demographic Profile – Marital Status**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single	116	23.4	23.4	23.4
	Married	142	28.6	28.7	52.1
	Divorced	112	22.6	22.6	74.7
	Others	126	25.4	25.3	100.0
	Total	496	100.0	100.0	
Missing	System	0	0		
Total		496	100.0		

(Source: Primary Data, computed by the Author)



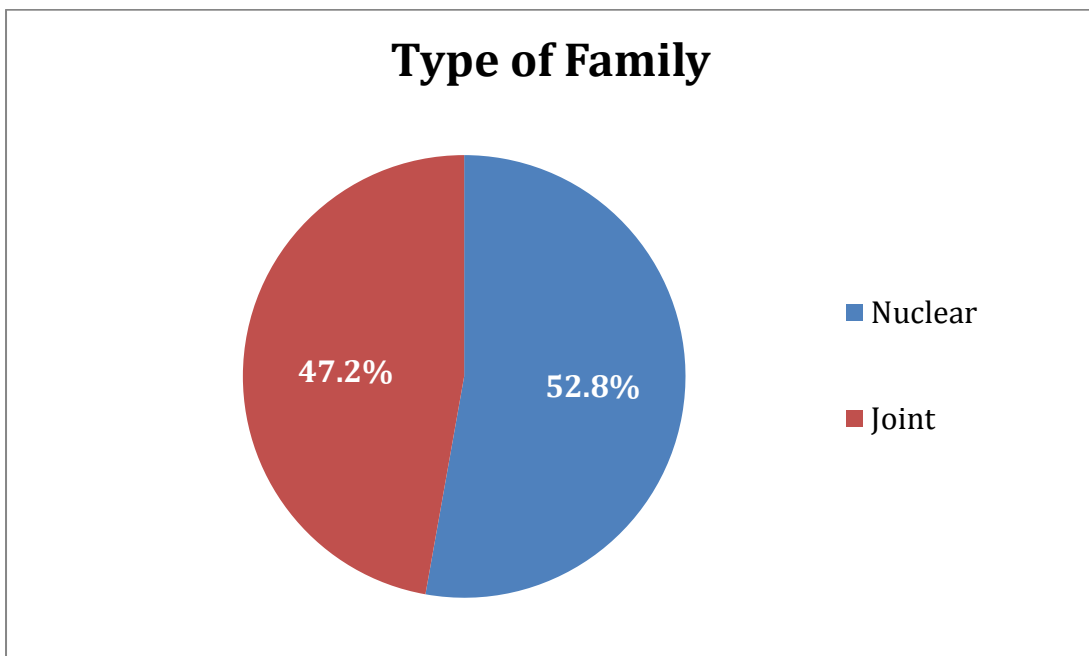
**Figure 5.8: Demographic Profile – Marital Status**

As per Table 5.9, respondents with married marital status represented the maximum number with 28.6%, followed by the others with 25.4%, and by the single with 23.4% and the divorced with 22.6%.

**Table 5.10: Demographic Profile – Type of Family**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Nuclear	262	52.8	52.9	52.9
	Joint	234	47.2	47.1	100.0
	Total	496	100.0	100.0	
Missing	System	0	0		
Total		496	100.0		

(Source: Primary Data, computed by the Author)



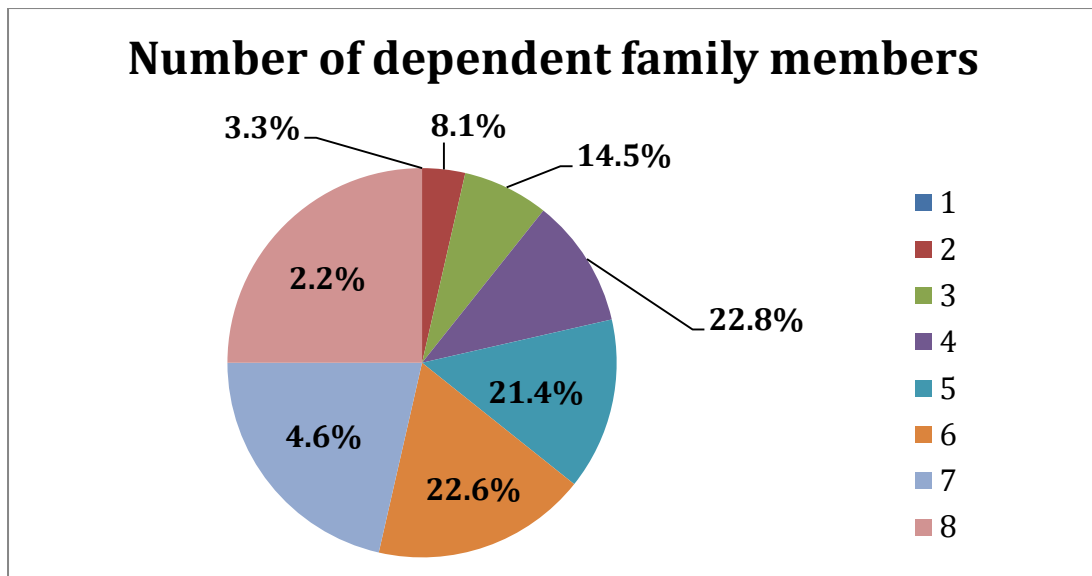
**Figure 5.9: Demographic Profile – Type of Family**

As per Table 5.10, 52.8% of respondents are from nuclear families and 47.2% are from joint families.

**Table 5.11: Demographic Profile – Number of dependent family members**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.0	40	8.1	8.1	8.1
	1.0	72	14.5	14.6	22.7
	2.0	113	22.8	22.9	45.5
	3.0	106	21.4	21.5	67.0
	4.0	112	22.6	22.7	89.7
	5.0	23	4.6	4.7	94.3
	6.0	11	2.2	2.2	96.6
	7.0	19	3.3	3.4	100.0
	Total	496	100.0	100.0	
Missing	System	0	0		
Total		496	100.0		

(Source: Primary Data, computed by the Author)



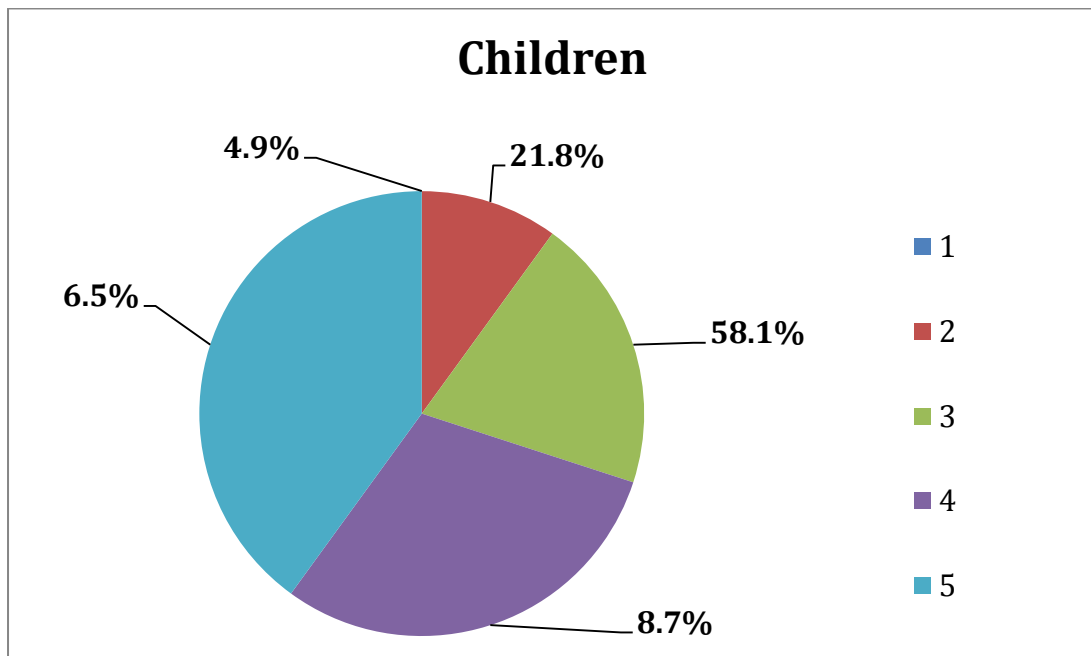
**Figure 5.10: Demographic Profile – Number of dependent family members**

Number of dependent family members vary up to 7 depending on family to family. Number of dependents and their percentage among the respondents are mentioned in above Table 5.11. All of these are not children, out of the dependents number of children with their frequency percentage are mentioned in below mentioned Table 5.12.

**Table 5.12: Demographic Profile – Children**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	108	21.8	21.8	21.8
	1	288	58.1	58.1	79.9
	2	43	8.7	8.7	88.6
	3	32	6.5	6.5	95.1
	4	25	4.9	4.9	100.0
	Total	496	100.0	100.0	
Missing	System	0	0		
Total		496	100.0		

(Source: Primary Data, computed by the Author)



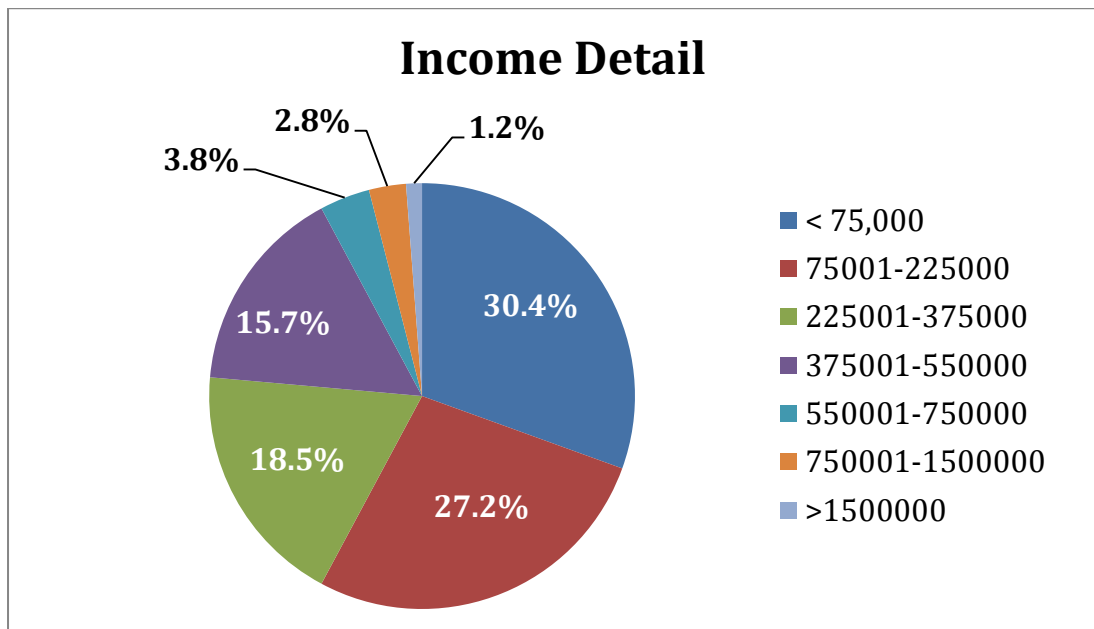
**Figure 5.11: Demographic Profile – Children**



**Table 5.13: Demographic Profile – Income Detail**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	< 75,000	151	30.4	30.5	30.5
	75001-225000	135	27.2	27.3	57.8
	225001-375000	92	18.5	18.6	76.4
	375001-550000	78	15.7	15.8	92.1
	550001-750000	19	3.8	3.8	96.0
	750001-1500000	14	2.8	2.8	98.8
	>1500000	7	1.2	1.2	100.0
	Total	499	100.0	100.0	
Missing	System	0	0		
Total		496	100.0		

(Source: Primary Data, computed by the Author)



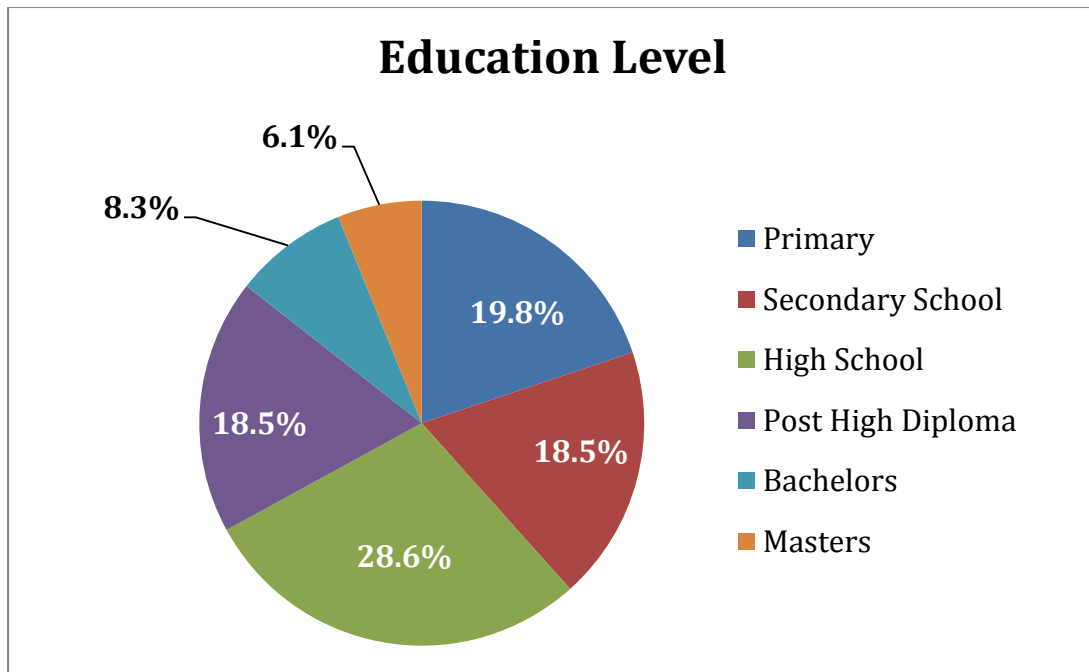
**Figure 5.12: Demographic Profile – Income Detail**

Table 5.13 shows that a maximum respondents that is 30.4% are in the income group of below 75000, next 27.2% are in the income group 75001-225000, 18.5% in the income group of 225001-375000, 15.7% in the income group of 375001-550000, 3.8% in the income group of 550001-750000, 2.8% in the income group of 750001-1500000 and 1.2% in more than 1500000 income group.

**Table 5.14: Demographic Profile – Education Level**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Primary	98	19.8	19.8	19.8
	Secondary School	92	18.5	18.6	38.4
	High School	142	28.6	28.7	67.1
	Post High Diploma	92	18.5	18.6	85.7
	Bachelors	41	8.3	8.3	93.9
	Masters	31	6.1	6.1	100.0
	Total	499	100.0	100.0	
Missing	System	0	0		
Total		496	100.0		

(Source: Primary Data, computed by the Author)



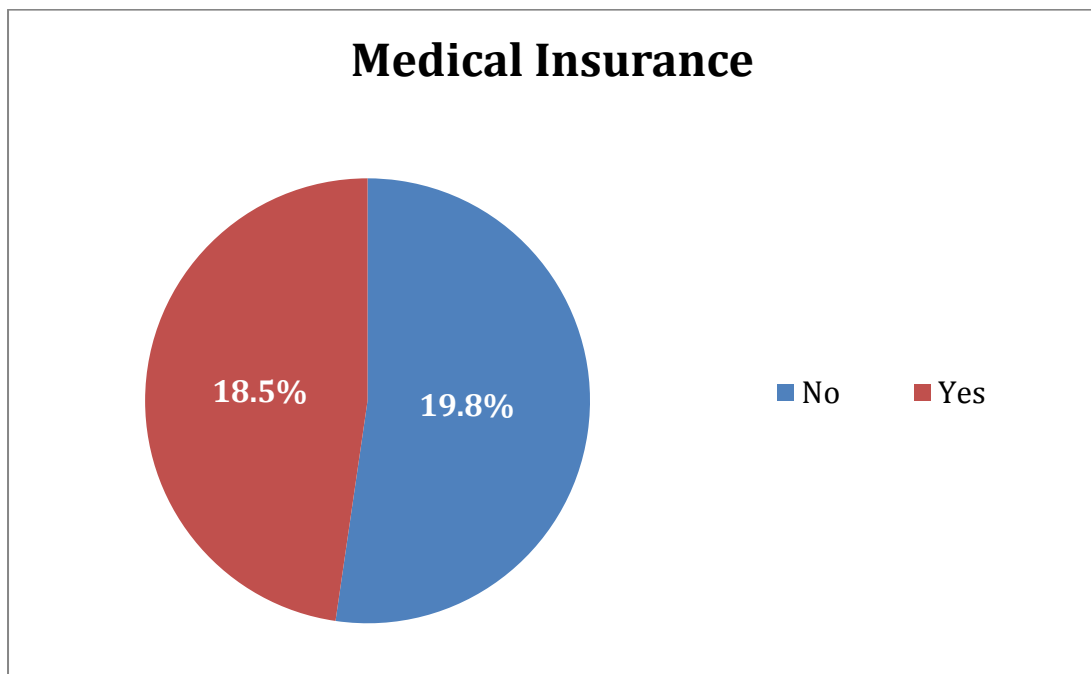
**Figure 5.13: Demographic Profile – Education Level**

As per Table 5.14, 67% of respondents have studied up to school level and 33% studied up to the level of higher education institutions.

**Table 5.15: Demographic Profile – Medical Insurance**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	259	52.3	52.3	52.3
	Yes	237	47.7	47.7	100.0
	Total	496	100.0	100.0	
Missing	System	0	0		
Total		496	100.0		

(Source: Primary Data, computed by the Author)



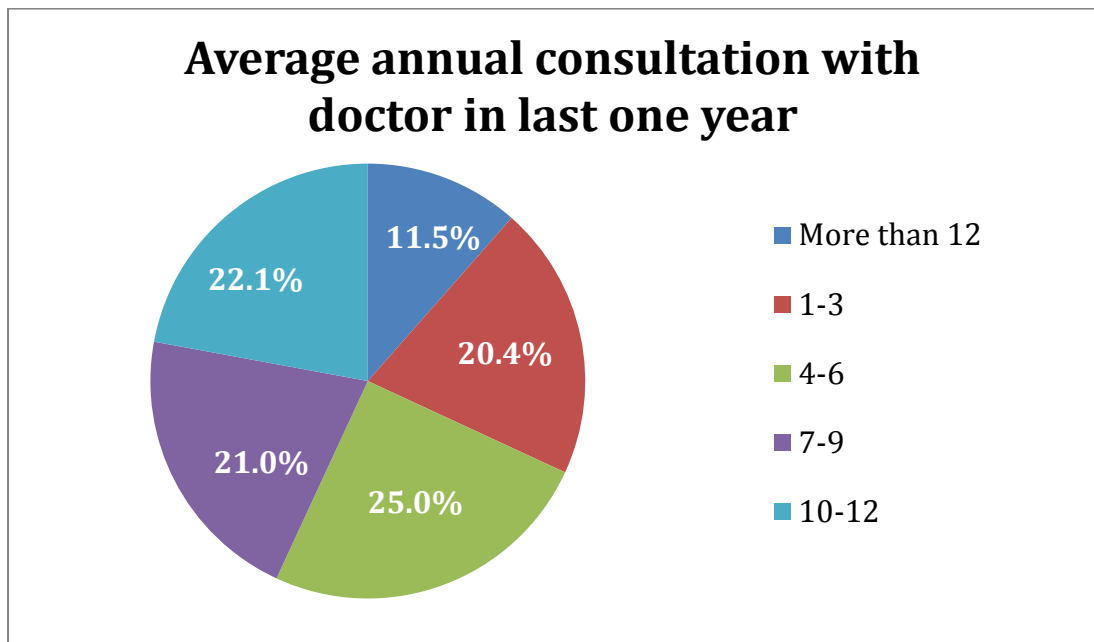
**Figure 5.14: Demographic Profile – Medical Insurance**

As per Table 5.15, 47.7% of respondents are having health/medical insurance and 52.3% are not under any health/medical cover.

**Table 5.16: Demographic Profile – Average annual consultation with doctor in last one year**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	More than 12	57	11.5	11.5	11.5
	1-3	101	20.4	20.4	31.9
	4-6	124	25.0	25.0	56.9
	7-9	104	21.0	21.0	77.9
	10-12	110	22.1	22.1	100.0
	Total	496	100.0	100.0	
Missing	System	0	0		
Total		496	100.0		

(Source: Primary Data, computed by the Author)



**Figure 5.15: Demographic Profile – Average annual consultation with doctor in last one year**

Table 5.16 is reflective of Average number of annual consultation that respondents are undertaking with their doctor in last one year.

### 5.3 CLASSIFICATION OF THE RESPONDENTS INTO DIFFERENT SEGMENTS BASED ON THEIR CHOICES FOR DIFFERENT SYSTEMS OF MEDICINE

#### Cluster Analysis

ANOVA (the Analysis of Variance) and the method of K-Means were implemented to perform this analysis.

**Table 5.17: ANOVA Results**

	Cluster		Error		F	Sig.
	Mean Square	df	Mean Square	df		
Zscore: Age Details	9.769	3	.946	491	10.322	.000
Zscore: Gender	28.479	3	.832	491	34.225	.000
Zscore: Religion	1.610	3	.996	491	1.616	.185
Zscore: Place of Residence (Rural/Urban)	29.185	3	.828	491	35.256	.000
Zscore: Occupation	4.064	3	.981	491	4.142	.006
Zscore: Marital Status	33.884	3	.799	491	42.403	.000
Zscore: Type of family	15.400	3	.912	491	16.886	.000
Zscore: Number of dependent family members	13.428	3	.924	490	14.534	.000
Zscore: Children	12.681	3	.929	491	13.656	.000
Zscore: Income Detail	6.524	3	.966	491	6.752	.000
Zscore: Education Level	20.982	3	.878	491	23.900	.000
Zscore: Medical Insurance	64.504	3	.612	491	105.400	.000
Zscore: Average annual consultation with doctor in last one year	52.282	3	.687	491	76.140	.000
Zscore: Region	75.666	3	.544	491	139.146	.000
Zscore: Holistic	18.743	3	.886	465	21.165	.000
Zscore: Credibility	8.212	3	.953	465	8.612	.000
Zscore: Popularity	1.307	3	.998	465	1.310	.271
Zscore: Contemporary	8.847	3	.949	465	9.319	.000
Zscore: Effectiveness	75.676	3	.518	465	146.032	.000
Zscore: Expedient	2.801	3	.988	465	2.834	.038

(Source: Primary Data, computed by the Author)

As per Table 5.17, the factors exhibiting a value more than 0.05 i.e. 5% are to be excluded from the analysis as they are exceeding the significant value of variables.

ANOVA (the Analysis of Variability) and the matrix of rotated component (factor analysis) were used to calculate the significant variables. Only these variables will be considered in the present study to make segments of population suggesting their similarities while making a choice for different systems of medicine.

Respondents were categorized into different clusters after applying cluster analysis. Table 5.18, unveils the number of cases within each cluster.

**Table 5.18: Number of Cases in each Cluster**

Cluster	1	87.000
	2	133.000
	3	139.000
	4	137.000
Valid		496.000
Missing		.000

(Source: Primary Data, computed by the Author)

Table 5.18 shows, cluster 3 has the maximum that is 139 number of respondents, afterwards cluster 4, 2 and 1 respectively. The attributes for each of these clusters are depicted in Table 5.19.

Cluster analysis indicates us about the grouping of respondents attributes based on their demographic characteristics and the important significant factors. It is analyzed from the data that cluster 1, cluster 2 and cluster 3 can be potential target clients for indigenous system of medicines (AYUSH) and cluster 4 for the modern system of medicine (Allopathy).

**Table 5.19: Attributes of Individual Clusters**

	<b>Cluster-I</b>	<b>Cluster-II</b>	<b>Cluster-III</b>	<b>Cluster-IV</b>
Preferred System of medicine	Alternative Medicine	Ayurveda Homeopathy	Unani Siddha Yoga	Allopathy
Age Details	46-60 years	31-45 years Greater than 60 years	18-30 years 46-60 years	31-45 years
Gender	Male	Female	Female	Male
Place of Residence: Rural / Urban	Rural	Rural	Urban	Urban
Occupation	Private Job	Self Employed	Private Job Government Job	Professionals
Marital Status	Single Married	Others Divorced	Married Others	Married Single
Type of family	Joint Family	Joint Family Nuclear Family	Nuclear Family	Nuclear Family
Medical Insurance	Yes	No	No	Yes
Region	Majja Malwa	Doaba	Malwa Majja	Malwa
Holistic Approach	Slightly Important	Very Important	Very Important	Not so Important
Credibility	Not so Important	Very Important	Moderately Important	Very Important
Contemporary	Moderately Important	Very Important	Not so Important	Very Important
Effectiveness	Extremely Important	Not so Important	Slightly Important	Moderately Important
Expedient	Not so Important	Neutral	Neutral	Moderately Important

(Source: Primary Data, computed by the Author)

As per above described clusters, we see a summary of its most prominent properties and hence as per these characteristic features' clusters are named as follows:

Cluster 1: UNCONVENTIONAL - Inclined towards Alternative Medicine

Cluster 2: TRADITIONAL - Inclined towards Indigenous Medicine (Ayurveda & Homeopathy)

Cluster 3: ORGANIC - Inclined towards Indigenous Medicine (Unani, Siddha and Yoga)

Cluster 4: MODERN - Inclined towards Allopathic Medicine

Among these, segments people from Cluster 1-Unconventional: Inclined towards Alternative Medicine with age group from 46-60 years, male, residing in urban areas of Majja and Malwa region, professional by occupation either married or single, considering credibility and contemporary factor in relation to system of medicine very important should be the targets for healthcare service providers and drug manufacturers of Alternative system of medicine. Segments comprising people from Cluster 2-Traditional: Inclined towards Indigenous Medicine (Ayurveda & Homeopathy) of either 31-45 years or above 60 years of age group, female residing in rural areas of Doaba considering Holistic approach and Credibility factor very important in relation to system of medicine should be the targets for healthcare service providers and drug manufacturers of Ayurvedic and Homeopathic systems of medicine. Further, segments comprising people from Cluster 3-Organic: Inclined towards Indigenous Medicine (Unani, Siddha and Yoga) of either 18-30 years or 46-60 years, female, residing in urban areas of Malwa and Majja, considering holistic approach to be very important factor in relation to system of medicine should be the targets for healthcare service providers and drug manufacturers for Unani, Siddha, Yoga & Naturopathy system of medicine.

Finally, segments comprising people from Cluster 4-Modern: Inclined towards Allopathic Medicine with 46-60 years of age group, male, residing in rural areas of Malwa considering effectiveness to be very important factor in relation to system of medicine should be the targets for healthcare service providers and drug manufacturers for allopathic system of medicine.



As per above mentioned result null hypothesis i.e. **H02**: There is no significant difference between choices for different systems of medicine among different category of respondents was not accepted, as there is significant difference among different category of respondents for making a choice towards the different systems of medicine is seen.

Hence, in the light of this, it can be said that the null hypothesis is rejected.

#### 5.4 FACTORS THAT INFLUENCE PATIENTS' CHOICE FOR SELECTING SYSTEM OF MEDICINE

Most of the factors considered under the present study have been rated as significant. However, importance of the factors in terms of their importance to choose the preferred system of medicine are mentioned below.

**Table 5.20 : Relative Significance of Each Factor in the Choice of the Preferred system of Medicine**

	Mean	Std. Deviation	Analysis N	
Factor influencing the choice-Side effects	5.04	2.088	496	Very Important
Factor influencing the choice-Holistic Approach	2.98	2.013	496	Not at all Important
Factor influencing the choice-Instant Relief	3.11	1.872	496	Slightly Important
Factor influencing the choice-Scientific based approach	6.05	1.064	496	Extremely Important
Factor influencing the choice-Planned Diet Plan	5.83	1.281	496	Extremely Important
Factor influencing the choice-Life style changes	5.66	1.492	496	Extremely Important
Factor influencing the choice-Inclusion of stress relieving tech	5.76	1.232	496	Extremely Important
Factor influencing the choice-Complete Cure	5.85	1.312	496	Extremely Important
Factor influencing the choice-Symptomatic relief	6.06	1.141	496	Extremely Important

	Mean	Std. Deviation	Analysis N	
Factor influencing the choice-Organic or natural	6.14	1.177	496	Very Important
Factor influencing the choice-Ages of existence	6.01	1.011	496	Extremely Important
Factor influencing the choice-Involvement of technology	5.67	1.435	496	Extremely Important
Factor influencing the choice-Comprehensive treatment potentials	5.78	1.393	496	Extremely Important
Factor influencing the choice-Potential for prevention of disease	5.92	1.292	496	Extremely Important
Factor influencing the choice-Under health insurance	5.93	1.216	496	Extremely Important
Factor influencing the choice-Located in proximity	5.84	1.336	496	Extremely Important
Factor influencing the choice-Good media report	5.88	1.076	496	Very Important
Factor influencing the choice-Recommended friend & family	6.12	1.055	496	Extremely Important
Factor influencing the choice-Cost of treatment	6	1.028	496	Extremely Important
Factor influencing the choice-Professional Competency of Doctor	5.89	1.108	496	Extremely Important
Factor influencing the choice-Timely access	6.02	1.09	496	Extremely Important
Factor influencing the choice-Use of health care equipment	6	1.002	496	Extremely Important
Factor influencing the choice-Location accessibility	5.78	1.284	496	Very Important
Factor influencing the choice-Behavior of Doctor	5.94	1.155	496	Extremely Important
Factor influencing the choice-Clear explanation of side effects at time of prescription	6.22	0.948	496	Extremely Important
Factor influencing the choice-ability to handle emergency	5.301	1.7691	496	Extremely Important

(Source: Primary Data, computed by the Author)

## Factor Analysis

The variables of significance were grouped by using this analysis while choosing a different system of medicine. It is used to decrease the number of variables for better understanding. Usually KMO value generally ranges from 0-1 and generally the accepted value is more than 0.6. Also, the rarity of the study is directly proportional to the sphericity test of Bartlett and hence forth signifies the credibility of the gathered responses to the addressed issue in the study. The recommendation of factor analysis is suitable, if the Bartlett's test of sphericity has a value lesser than 0.05. In this research study, the obtained value of KMO is 0.816 in relation to the value 0.000 of the Bartlett's test of sphericity, which is less than 0.05, hence it is considered to be significant.

**Table 5.21: The Results of KMO and Bartlett's Test**

(KMO) KAISER-MEYER-OLKIN'S MEASURE OF SAMPLE ADEQUACY		.816
BARTLETT'S TEST OF SPHERICITY	APPROX. CHI-SQ.	10111.693
	df	325
	SIGNIFICANCE	.000

(Source: Primary Data, computed by the Author)

Table 5.22 shows that six factors show an eigenvalue exceeding 1 validating 73.403% of the calculated variation. As revealed by the test, the paramount variation is among first-six factors as revealed by the test and this is also depicted in the scree plot.

Table 5.22 : The Explanation of Total Variance

COMPONENT	INITIAL EIGEN VALUES			SQUARED LOADINGS EXTRACTION SUMS			SQUARED LOADINGS ROTATION SUMS		
	TOTAL	VARIANCE %	CUMULATIVE %	TOTAL	VARIANCE %	CUMULATIVE %	TOTAL	VARIANCE %	CUMULATIVE %
1	10.078	38.762	38.762	10.078	38.762	38.762	5.065	19.480	19.480
2	2.666	10.254	49.016	2.666	10.254	49.016	4.166	16.024	35.504
3	2.414	9.284	58.300	2.414	9.284	58.300	2.664	10.247	45.750
4	1.376	5.294	63.595	1.376	5.294	63.595	2.585	9.943	55.693
5	1.348	5.186	68.781	1.348	5.186	68.781	2.473	9.511	65.203
6	1.202	4.622	73.403	1.202	4.622	73.403	2.132	8.199	73.403
7	0.843	3.243	76.646						
8	0.819	3.149	79.795						
9	0.676	2.602	82.397						
10	0.552	2.122	84.519						
11	0.520	1.998	86.517						
12	0.506	1.946	88.463						
13	0.403	1.549	90.012						

COMPONENT	INITIAL EIGEN VALUES			SQUARED LOADINGS EXTRACTION SUMS			SQUARED LOADINGS ROTATION SUMS		
	TOTAL	VARIANCE %	CUMULATIVE %	TOTAL	VARIANCE %	CUMULATIVE %	TOTAL	VARIANCE %	CUMULATIVE %
14	0.344	1.324	91.336						
15	0.325	1.249	92.585						
16	0.297	1.144	93.729						
17	0.274	1.053	94.782						
18	0.238	0.916	95.698						
19	0.218	0.838	96.536						
20	0.189	0.728	97.264						
21	0.166	0.640	97.905						
22	0.145	0.556	98.461						
23	0.116	0.448	98.909						
24	0.103	0.396	99.305						
25	0.097	0.374	99.679						
26	0.083	0.321	100.000						
Extraction Method: Principal Component Analysis.									

(Source: Primary Data, computed by the Author)

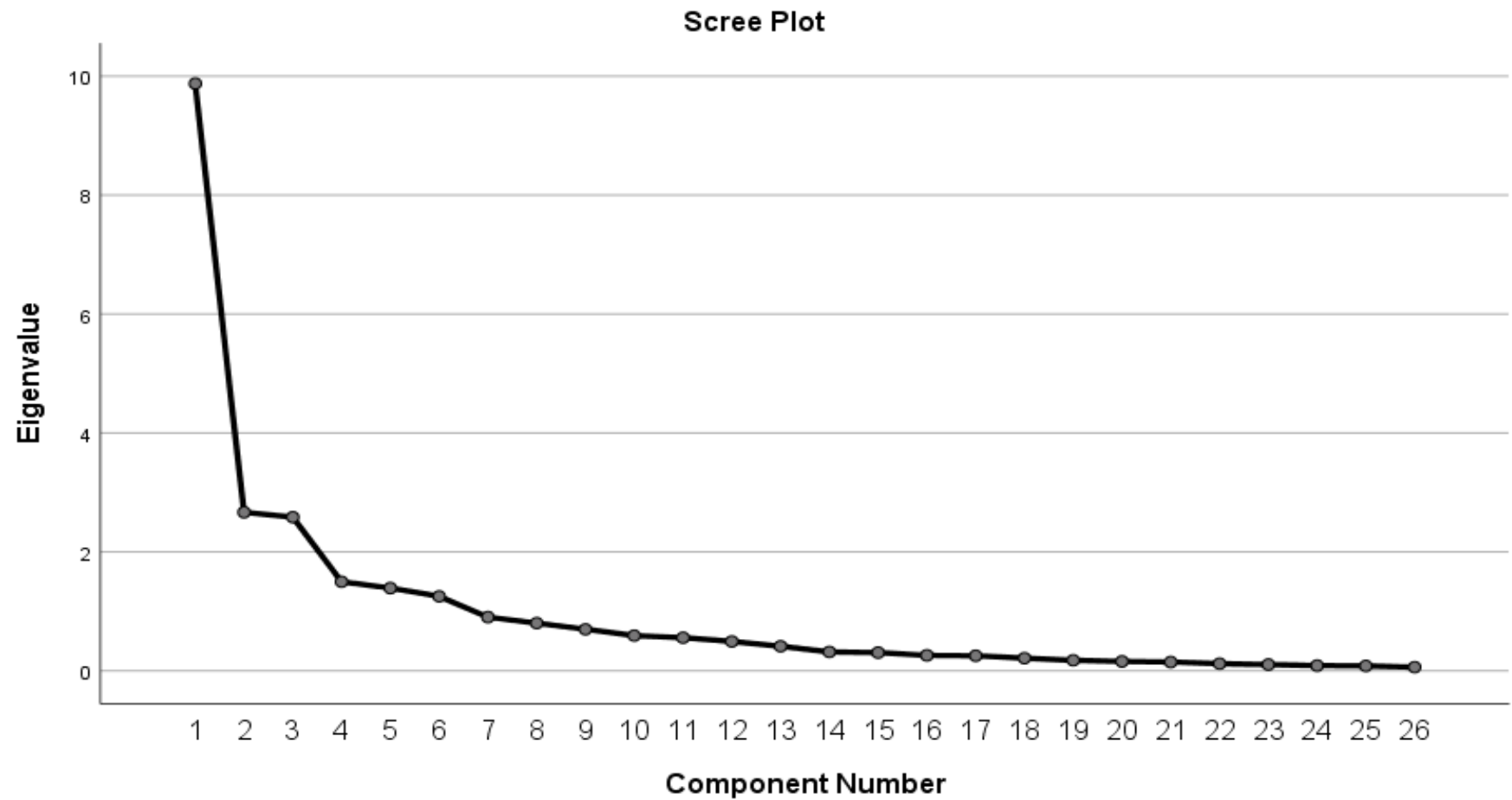


Figure 5.16: Factors depicted in the scree plot

**Table 5.23: Rotated Component Matrix**

	Component					
	1	2	3	4	5	6
Factor influencing the choice- Complete Cure	.822					
Factor influencing the choice- Inclusion of stress relieving techniques	.769	.318				
Factor influencing the choice- Life style changes	.734	.364				
Factor influencing the choice- Inclusion of Diet Plan	.707	.396				
Factor influencing the choice- Recommended by friend & family	.647			.304		
Factor influencing the choice- Professional Competency of Doctor	.595			.303		
Factor influencing the choice- Clear explanation of side effects at time of prescription		.801				
Factor influencing the choice- Location accessibility	.307	.786				
Factor influencing the choice- Behavior of Doctor	.452	.739				
Factor influencing the choice- Use of health care equipment	.444	.728				
Factor influencing the choice- Timely access	.464	.594				
Factor influencing the choice- Cost of treatment	.320	.563	.342			
Factor influencing the choice- Scientific based approach	.500	.524				.343
Factor influencing the choice- Under health insurance			.720	.355		
Factor influencing the choice- Good media report	.470		.688			
Factor influencing the choice- Located in proximity			.688			

	Component					
	1	2	3	4	5	6
Factor influencing the choice- Potential for prevention of disease			.629	.419		.327
Factor influencing the choice- Involvement of technology				.869		
Factor influencing the choice- Comprehensive treatment potentials				.826		
Factor influencing the choice- Ages of existence		.313	.417	.576		
Factor influencing the choice- Holistic Approach					-.944	
Factor influencing the choice- Instant Relief					-.831	
Factor influencing the choice- Side effects					.799	
Factor influencing the choice- Organic or natural	.379					.764
Factor influencing the choice- ability to handle emergency						.701
Factor influencing the choice- Symptomatic relief	.484					.646

(Source: Primary Data, computed by the Author)

As per above reflected values of varimax rotation, the coefficients with values less than 0.5 are said to be weak. Hence as per values obtained in Table 5.23 six factors emerged submerging all the twenty-six factors:

Factor 1: **Holistic approach** – complete care, Inclusion of – stress relieving technique, diet plan, lifestyle changes, recommended by friends and family and professional competencies of the doctor.

Factor 2: **Credibility** – explanation of side effects at time of prescription, Location accessibility, Behavior of Doctor, Scientific based approach, use of health care equipment, timely access, cost of treatment.



Factor 3: **Popularity** - Under health insurance, good media reports, located in proximity and potential for prevention of disease

Factor 4: **Contemporary** - Involvement of technology, Comprehensive treatment potentials, Ages of existence

Factor 5: **Effectiveness** - Instant Relief, Holistic, Minimal Side effects

Factor 6: **Expedient** - Organic or natural, ability to handle emergency, Symptomatic relief

Communalities reveal the quantity of variance in each original variable which is explaining the extracted factors. Owing to the desirability of the higher communalities, any variable with a value below 50% (0.5) is to be excluded from the analysis.

If we check for the communalities, the factors showing values more than 0.5 explain maximum variation for the variables. In the present case, all the other twenty-six variables have communalities greater than 0.5 as shown in Table 5.24

**Table 5.24: Communalities**

	<b>Initial</b>	<b>Extraction</b>
Factor influencing the choice- Side effects	1	0.878
Factor influencing the choice- Holistic Approach	1	0.915
Factor influencing the choice- Instant Relief	1	0.831
Factor influencing the choice- Scientific based approach	1	0.659
Factor influencing the choice- Planned Diet Plan	1	0.726
Factor influencing the choice- Life style changes	1	0.737
Factor influencing the choice- Inclusion of stress relieving tech	1	0.782
Factor influencing the choice- Complete Cure	1	0.763
Factor influencing the choice- Symptomatic relief	1	0.785
Factor influencing the choice- Organic or natural	1	0.856
Factor influencing the choice- Ages of existence	1	0.685

	<b>Initial</b>	<b>Extraction</b>
Factor influencing the choice- Involvement of technology	1	0.84
Factor influencing the choice- Comprehensive treatment potentials	1	0.781
Factor influencing the choice- Potential for prevention of disease	1	0.706
Factor influencing the choice- Under health insurance	1	0.761
Factor influencing the choice- Located in proximity	1	0.707
Factor influencing the choice- Good media report	1	0.721
Factor influencing the choice- Recommended friend & family	1	0.622
Factor influencing the choice- Cost of treatment	1	0.58
Factor influencing the choice- Professional Competency of Doctor	1	0.596
Factor influencing the choice- Timely access	1	0.619
Factor influencing the choice- Use of health care equipment	1	0.785
Factor influencing the choice- Location accessibility	1	0.749
Factor influencing the choice- Behavior of Doctor	1	0.771
Factor influencing the choice- Clear explanation of side effects at time of prescription	1	0.699
Factor influencing the choice- ability to handle emergency	1	0.53
Extraction Method: Principal Component Analysis.		

(Source: Primary Data, computed by the Author)

## **5.5 RELATIVE INFLUENCE OF THE FACTORS AFFECTING THE CHOICE OF TREATMENT AMONG DIFFERENT SYSTEMS OF MEDICINE**

Discriminant Analysis – it helped us to determine the likelihood of a client to be influenced with the factors which are dependent on the variables of demography and other significant factors in the study.

System of medicine preferred is used as dependent variable and the factors Holistic approach, Popularity, Contemporary, Effectiveness, Expedient and significant demographic attributes are to be used as variables which are independent.

**Table 5.25: Wilks' Lambda for Discriminant analysis**

Test of Function	Wilks' Lambda	Chi-Sq.	df	Significance
1 through 5	.285	606.901	80	.000

(Source: Primary Data, computed by the Author)

Wilks' Lambda's significance is less than 0.05 and is obtained as 0.000. It indicates that it is valid and thus produce a correct discriminant analysis.

**Table 5.26: Eigen Values for Discriminant analysis**

Function	Eigenvalue	% of Variance	Cumulative %	Canonical Correlation
1	.767 <sup>a</sup>	49.6	49.6	.659
2	.420 <sup>a</sup>	27.1	76.7	.544
3	.212 <sup>a</sup>	13.7	90.4	.418
4	.117 <sup>a</sup>	7.6	98.0	.324
5	.031 <sup>a</sup>	2.0	100.0	.174

(Source: Primary Data, computed by the Author)

The first function alone accounts for 49.6% of the discriminating ability of the discriminating variables. A canonical correlation of 0.659 depicts that the model explains 49.6% of variation in the grouping variable.

**Table 5.27: Test of Equality calculating Group Means**

	Wilks' Lambda	F	df1	df2	Significance
Holistic Approach	.656	51.407	5	490	.000
Credibility	.765	30.055	5	490	.000
Popularity	.994	.566	5	490	.726
Contemporary	.914	9.186	5	490	.000
Effectiveness	.953	4.837	5	490	.000
Expedient	.968	3.228	5	490	.007
Age	.877	13.733	5	490	.000
Gender	.998	.172	5	490	.973
Religion	.989	1.119	5	490	.349
Place of Residence	.981	1.922	5	490	.089
Occupation	.988	1.185	5	490	.315
Marital Status	.988	1.229	5	490	.294
Type of family	.924	8.059	5	490	.000
Education Level	.997	.336	5	490	.891
Medical Insurance	.977	2.309	5	490	.043
Region	.999	.112	5	490	.990

(Source: Primary Data, computed by the Author)

The test of significance of the difference between means of each independent variable is provided by the test measuring the equality of group means. Only the variables having a value below 0.05 are to be considered. All the other variables will be rejected. Thus, the variables considered are

- 1) Holistic Approach
- 2) Credibility
- 3) Contemporary
- 4) Effectiveness
- 5) Expedient
- 6) Age
- 7) Type of Family
- 8) Medical insurance

### Structure Matrix

**Table 5.28: Structure Matrix**

	Function				
	1	2	3	4	5
Type of family	.820*	.097	.018	-.052	-.386
Place of Residence	.196	.810*	.068	.035	-.105
Effectiveness	.289	.138	-.643*	.377	.095
Popularity	-.105	.015	.421	.547*	-.190
Medical Insurance	.231	-.007	.116	.312*	.308
Expedient	.242	-.078	.005	-.252*	.036
Gender	-.002	.070	.094	-.250*	.202
Religion	.068	.105	-.173	-.209*	.006
Age	-.212	-.069	.038	.155*	.130
Education Level	.015	.009	-.032	.105*	.028
Occupation	-.034	-.095	-.287	.180	-.476*
Credibility	-.313	.097	.376	-.051	-.409*
Holistic Approach	.235	-.192	.320	.279	.399*
Contemporary	.258	-.039	-.090	-.217	.229*
Marital Status	-.035	-.004	-.079	-.033	-.185*
Region	-.024	.009	.050	-.007	.061*

(Source: Primary Data, computed by the Author)

From the above structure matrix, only those variables with a functional value of more than 0.2 can be considered. There are eight variable which fall under this category. After considering the significance of the test of equality means, the following eight factors can be considered for the present study.

- 1) Holistic Approach
- 2) Credibility
- 3) Contemporary
- 4) Effectiveness
- 5) Expedient
- 6) Age
- 7) Type of Family
- 8) Medical insurance

**Table 5.29: Canonical Discriminant Function Coefficients**

	Function				
	1	2	3	4	5
Holistic Approach	.255	-.065	.027	-.026	-.082
Credibility	-.018	.246	.019	.024	.028
Popularity	-.039	-.103	.001	.045	.111
Contemporary	.100	-.066	.115	.083	.133
Effectiveness	-.050	.001	.189	-.124	-.133
Expedient	-.084	-.076	-.135	.135	-.170
Age	.151	.144	-.740	.383	.167
Gender	.061	.009	.051	.090	.097
Religion	.143	-.042	.052	-.466	.128
Place of Residence	.114	.062	-.229	-.404	.036
Occupation	.115	-.043	-.140	-.146	.190
Marital Status	-.091	.031	.041	-.220	.213
Type of family	-.207	.038	.561	1.422	-.608
Education Level	-.089	.009	-.141	-.039	-.351
Medical Insurance	.430	.257	.342	.586	.602
Region	.147	.085	-.102	.093	.304
(Constant)	-7.823	-4.033	-1.741	-4.973	-.180

(Source: Primary Data, computed by the Author)

Coefficients with large absolute values correspond to variables with greater discriminating abilities. These unstandardized coefficients will be used to create the discriminant function. Thus, the discriminant function is

System of Medicine Score =  $-7.823 + .255 * \text{Holistic Approach}$

+  $.246 * \text{Credibility}$

+  $.133 * \text{Contemporary}$

+  $.189 * \text{Effectiveness}$

+  $.135 * \text{Expedient}$

+  $.383 * \text{Age}$

+  $1.422 * \text{Type of Family}$

+  $.602 * \text{Medical Insurance}$

Relative Influence of Factors

The table 5.29 shows Standardized Canonical Discriminant Function Coefficients. It can be used to see the relative influence of the factors while making the choice, the coefficient for **Type of family** is most influential with value of (1.422). It means the type of family is most effective variable to discriminate preference for system of medicine among all the significant predictors. The value for having **Medical Insurance** comes at second place (.602). It means medical insurance is the second strongest predictor of discrimination of preference of system of medicine. **Age** comes at third place with value of (.383), which makes him third strongest predictor. In this sequence, factors **Holistic approach, Credibility, Effectiveness** comes with respect to relative effectiveness of predictors with values (.255), (.246) and (.189) respectively. **Expedient factor** is the second least effective predictor of discrimination with value of (.135) and the most least effective predictor of discrimination of system of medicine is **Contemporary** factor with standardized coefficient of (.133).

**Table 5.30: Function at Group Centroids**

System Preference	Function				
	1	2	3	4	5
Allopathy	-1.524	.489	-.505	-.117	-.005
Ayurveda	-.664	-1.026	.282	.444	-.008
Homoeopathy	.050	-.170	.540	-.562	-.190
Unani and Siddha	1.094	-.234	-.626	.051	-.112
Yoga & Naturopathy	.435	-.110	.067	-.231	.383
Alternative Medicine	.430	1.078	.427	.382	-.027

(Source: Primary Data, computed by the Author)

Means of the discriminant function scores by group for each function calculated and mentioned here. It is found that the 'Allopathy group has a mean of -1.524 (negative), Ayurveda has a mean of 0.664, Homeopathy has a mean of 0.050, Unani and Siddha has a mean of 1.094, Yoga and Naturopathy has a mean of .435 and Alternative medicine has .430.

**Table 5.31: Classification Results**

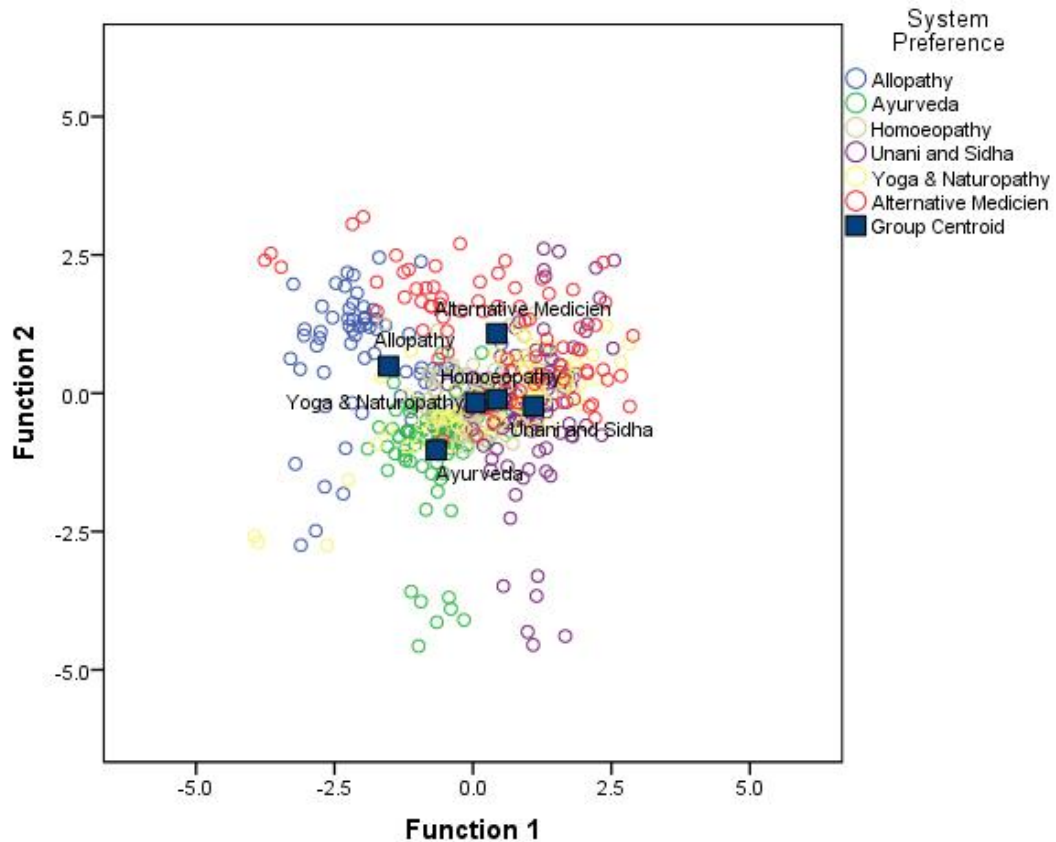
		System Preference	Predicted Group Membership					Total	
			Allopathy	Ayurveda	Homoeopathy	Unani and Sidha	Yoga & Naturopathy		Alternative Medicine
Original	Count	Allopathy	51	10	9	7	3	3	83
		Ayurveda	8	56	8	2	6	0	80
		Homoeopathy	5	3	41	3	19	7	78
		Unani and Siddha	1	8	3	58	13	16	99
		Yoga & Naturopathy	6	11	13	23	18	5	76
		Alternative Medicine	11	1	10	16	2	40	80
	%	Allopathy	61.4	12.0	10.8	8.4	3.6	3.6	100.0
		Ayurveda	10.0	70.0	10.0	2.5	7.5	.0	100.0
		Homoeopathy	6.4	3.8	52.6	3.8	24.4	9.0	100.0
		Unani and Siddha	1.0	8.1	3.0	58.6	13.1	16.2	100.0
		Yoga & Naturopathy	7.9	14.5	17.1	30.3	23.7	6.6	100.0
		Alternative Medicine	13.8	1.3	12.5	20.0	2.5	50.0	100.0
a. 53.2% of original grouped cases correctly classified.									

(Source: Primary Data, computed by the Author)



## Hit Ratio

Classification results has given a hit ratio of 53.2. It indicates that the discriminant function is able to predict the grouping variable correctly 53.2 times.



**Figure 5.17: Canonical Discriminant Function for System of Medicine**

Thus, by making the analysis through discriminant analysis it can be concluded that, the eight factors namely Holistic approach, Credibility, Contemporary, Effectiveness, Expedient, Age, Type of family and Medical insurance, influence the clients for preferencing the system of medicine.

As per above mentioned result null hypothesis i.e. H03: There is no significant influence of different factors in affecting the choice of treatment in different systems of medicine was not accepted as significant influence of the factors affecting the choice of treatment among different systems of medicine is seen.

Hence, in the light of this, it can be said that the null hypothesis is rejected.

## CHAPTER – 6

# TREATMENT SATISFACTION WITH DIFFERENT SYSTEMS OF MEDICINE

Adherence to the system of medicine has been recognized as a key issue in health outcomes. There are a number of elements that determine a patient's adherence to their treatment and includes effectiveness, Expedient, convenience and satisfaction with the system of medicine.

Treatment Satisfaction Questionnaire for Medication (TSQM) is a psychometrically robust validated instrument, tapping the most important dimensions of patients' experiences with their medication. The general nature of the instrument provides a way of evaluating and comparing patients' satisfaction with various types and forms of medications.

Part C of the research instrument (questionnaire) consisted of TSQM (Treatment Satisfaction Questionnaire for Medication) version 7. It consists of 14 questions, subdivided into 4 domains effectiveness, side-effects, convenience and global satisfaction.

The different dimensions of satisfaction was determined based on socio-demographic, influential factors to choose treatment, and different system of medicine.

### 6.1 SIGNIFICANCE OF DIFFERENCE IN TREATMENT SATISFACTION IN DIFFERENT SYSTEMS OF MEDICINE ON THE BASIS OF AGE GROUPS

Table 6.1 shows that the F value for difference is 2469.44, which is significant at .01 level. It means that there is significant difference in treatment satisfaction for different systems of medicine at different age groups. The satisfaction from system of medicine was most for the people of age group greater than 60 years (47.41) and it is least for the age group 31 to 45 years (45.16).

**Table 6.1: Significance of difference in treatment Satisfaction on the basis of Age Groups**

Source	Sum of Squares	df	Mean Square	F	Sig.
Model	1054862.091	4	263715.523	2469.443	.000
Age	1054862.091	4	263715.523	2469.443	.000
Error	52434.629	491	106.792		
Total	1107296.721	495			

(Source: Primary Data, computed by the Author)

## 6.2 SIGNIFICANCE OF DIFFERENCE IN TREATMENT SATISFACTION IN DIFFERENT SYSTEMS OF MEDICINE ON THE BASIS OF GENDER

**Table 6.2: Significance of difference in treatment Satisfaction in different systems of medicine on the basis of Gender**

	Levene's Test for Equality of Variances		t	df	Sig. (2-tailed)
	F	Sig.			
Equal variances assumed	.022	.882	1.816	494	.070
Equal variances not assumed			1.810	473.581	.071

(Source: Primary Data, computed by the Author)

In order to check the hypothesis, independent sample t test was applied. The significance value of 0.022 in case of Levene's Test for Equality of Variances makes us assume equal variances across the two samples. The t value for Significance of difference in treatment Satisfaction in different systems of medicine on the basis of Gender is 1.81 which is not significant. It means that there is no significant difference in treatment Satisfaction in different systems of medicine on the basis of Gender.

### 6.3 SIGNIFICANCE OF DIFFERENCE IN TREATMENT SATISFACTION IN DIFFERENT SYSTEMS OF MEDICINE ON THE BASIS OF RELIGION

**Table 6.3: Significance of difference in treatment Satisfaction in different systems of medicine on the basis of Religion**

	Levene's Test for Equality of Variances		t	df	Sig. (2-tailed)
	F	Sig.			
Equal variances assumed	.901	.343	1.806	494	.072
Equal variances not assumed			1.768	407.698	.078

(Source: Primary Data, computed by the Author)

In order to check the hypothesis, independent sample t test was applied. The significance value of 0.901 in case of Levene's Test for Equality of Variances makes us assume equal variances across the two samples.

The t value for Significance of difference in treatment Satisfaction in different systems of medicine on the basis of religion is 1.80 which is not significant. It means that there is no significant difference in treatment Satisfaction in different systems of medicine on the basis of religion.

### 6.4 SIGNIFICANCE OF DIFFERENCE IN TREATMENT SATISFACTION IN DIFFERENT SYSTEMS OF MEDICINE ON THE BASIS OF PLACE OF RESIDENCE

From Table 6.4, it observed that in order to check the hypothesis, independent sample t test was applied. The significance value of 0.342 in case of Levene's Test for Equality of Variances makes us assume equal variances across the two samples.

The t value for Significance of difference in treatment Satisfaction in different systems of medicine on the basis of place of residence is 0.45, which is not significant. It means that there is no significant difference in treatment Satisfaction in different systems of medicine on the basis of place of residence. People living

either in Rural area or Urban areas have no significant difference in satisfaction with different systems of medicine.

**Table 6.4: Significance of difference in treatment Satisfaction in different systems of medicine on the basis of place of residence**

	Levene's Test for Equality of Variances		t	df	Sig. (2-tailed)
	F	Sig.			
Equal variances assumed	.342	.559	.475	494	.635
Equal variances not assumed			.486	440.602	.627

(Source: Primary Data, computed by the Author)

## 6.5 SIGNIFICANCE OF DIFFERENCE IN TREATMENT SATISFACTION IN DIFFERENT SYSTEMS OF MEDICINE ON THE BASIS OF OCCUPATION

**Table 6.5: Significance of difference in treatment Satisfaction in different systems of medicine on the basis of occupation**

Source	Sum of Squares	df	Mean Square	F	Sig.
Model	1054586.521	4	263646.630	2455.891	.000
Occupation	1054586.521	4	263646.630	2455.891	.000
Error	52710.200	491	107.353		
Total	1107296.721	495			

(Source: Primary Data, computed by the Author)

The F value for difference is 2455.89, which is significant at .01 level. It means that there is significant difference in treatment satisfaction for different systems of medicine at different levels of occupation. The satisfaction from system of medicine is most for government employees (46.42) and least for private employees (45.91).

## 6.6 SIGNIFICANCE OF DIFFERENCE IN TREATMENT SATISFACTION IN DIFFERENT SYSTEMS OF MEDICINE ON THE BASIS OF MARITAL STATUS

**Table 6.6: Significance of difference in treatment Satisfaction in different systems of medicine on the basis of marital status**

Source	Sum of Squares	df	Mean Square	F	Sig.
Model	1054791.325	4	263697.831	2465.949	.000
Marital Status	1054791.325	4	263697.831	2465.949	.000
Error	52505.396	491	106.936		
Total	1107296.721	495			

(Source: Primary Data, computed by the Author)

The F value for difference is 2465.95, which is significant at .01 level. It means that there is significant difference in treatment satisfaction for different systems of medicine at different levels of Marital status. Respondent belonging to Others category are most satisfied which includes separated, widowed, live-in or LGBT community (46.99) and least satisfied were married people (45.30).

## 6.7 SIGNIFICANCE OF DIFFERENCE IN TREATMENT SATISFACTION IN DIFFERENT SYSTEMS OF MEDICINE ON THE BASIS OF TYPE OF FAMILY

**Table 6.7: Significance of difference in treatment Satisfaction in different systems of medicine on the basis of type of family**

	Levene's Test for Equality of Variances		t	df	Sig. (2-tailed)
	F	Sig.			
Equal variances assumed	6.581	.011	6.113	494	.000
Equal variances not assumed			6.107	485.402	.000

(Source: Primary Data, computed by the Author)

In order to check the hypothesis, independent sample t test was applied. The significance value of 6.58 in case of Levene's Test for Equality of Variances makes us assume unequal variances across the two samples.

The t value for Significance of difference in treatment Satisfaction in different systems of medicine on the basis of type of family is 6.107, which is significant at .01 level. It means that there is no significant difference in treatment Satisfaction in different systems of medicine on the basis of type of family. Further, mean scores show that nuclear families are significantly more satisfied than joint families.

## 6.8 SIGNIFICANCE OF DIFFERENCE IN TREATMENT SATISFACTION IN DIFFERENT SYSTEMS OF MEDICINE ON THE BASIS OF EDUCATION

**Table 6.8: Significance of difference in treatment Satisfaction in different systems of medicine on the basis of Education**

		Levene's Test for Equality of Variances		t	df	Sig. (2-tailed)
		F	Sig.			
Satisfaction	Equal variances assumed	.495	.482	-3.371	494	.001
	Equal variances not assumed			-3.324	310.238	.001

(Source: Primary Data, computed by the Author)

In order to check the hypothesis, independent sample t test was applied. The significance value of 0.495 in case of Levene's Test for Equality of Variances makes us assume equal variances across the two samples.

The t value for Significance of difference in treatment Satisfaction in different systems of medicine on the basis of education is 3.37 which is significant at .01 level. It means that there is significant difference in treatment Satisfaction in

different systems of medicine on the basis of Education. The satisfaction from system of medicine is most for Higher education institutions pass-out people (48.35) and least for school educated people (45.06).

### 6.9 SIGNIFICANCE OF DIFFERENCE IN TREATMENT SATISFACTION IN DIFFERENT SYSTEMS OF MEDICINE ON THE BASIS OF MEDICAL INSURANCE

**Table 6.9: Significance of difference in treatment Satisfaction in different systems of medicine on the basis of medical insurance**

		Levene's Test for Equality of Variances		t	df	Sig. (2-tailed)
		F	Sig.			
Satisfaction	Equal variances assumed	.428	.513	-1.273	494	.204
	Equal variances not assumed			-1.268	478.122	.205

(Source: Primary Data, computed by the Author)

In order to check the hypothesis, independent sample t test was applied. The significance value of 0.428 in case of Levene's Test for Equality of Variances makes us assume equal variances across the two samples.

The t value for Significance of difference in treatment Satisfaction in different systems of medicine on the basis of medical insurance is 1.27, which is not significant. It means that there is no significant difference in treatment Satisfaction in different systems of medicine on the basis of medical insurance.



## 6.10 SIGNIFICANCE OF DIFFERENCE IN TREATMENT SATISFACTION IN DIFFERENT SYSTEMS OF MEDICINE ON THE BASIS OF REGION

Table 6.10 shows that the t value for Significance of difference in treatment Satisfaction in different systems of medicine on the basis of region is 3302.035, which is significant at .01 level. It means that there is significant difference in treatment Satisfaction in different systems of medicine on the basis of region. The people of Doaba region are most satisfied with system of medicine (47.28) and people of Majja (44.98) are least satisfied.

**Table 6.10: Significance of difference in treatment Satisfaction in different systems of medicine on the basis of region**

Source	Sum of Squares	df	Mean Square	F	Sig.
Model	1054903.520	3	351634.507	3302.035	.000
Region	1054903.520	3	351634.507	3302.035	.000
Error	52393.201	492	106.490		
Total	1107296.721	495			

(Source: Primary Data, computed by the Author)

## 6.11 SIGNIFICANCE OF DIFFERENCE IN DIMENSIONS OF SATISFACTION AT DIFFERENT SYSTEMS OF MEDICINE

In this section evaluation of different dimensions of satisfaction with respect to various system of medicines was done.

Dimensions of Satisfaction – effectiveness (Q1-3), side effects (Q5-8), convenience (Q9-11), global satisfaction (Q12-14) and Total satisfaction (Q1-14).

Different Systems of medicine – Allopathy, AYUSH and Alternative medicine.

**Table 6.11: Significance of difference in dimensions of satisfaction at different systems of medicine**

<b>Dependent Variable</b>	<b>Source</b>	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Effectiveness	Model	107628.455	6	17938.076	795.801	.000
	System of Medicine	107628.455	6	17938.076	795.801	.000
	Error	9940.545	441	22.541		
	Total	117569.000	447			
Side Effect	Model	5464.075 <sup>b</sup>	6	910.679	24.687	.000
	System of Medicine	5464.075	6	910.679	24.687	.000
	Error	16267.925	441	36.889		
	Total	21732.000	447			
Convenience	Model	71772.904 <sup>c</sup>	6	11962.151	1593.703	.000
	System of Medicine	71772.904	6	11962.151	1593.703	.000
	Error	3310.096	441	7.506		
	Total	75083.000	447			
Global Satisfaction	Model	94793.220 <sup>d</sup>	6	15798.870	1074.906	.000
	System of Medicine	94793.220	6	15798.870	1074.906	.000
	Error	6481.780	441	14.698		
	Total	101275.000	447			
Total Satisfaction	Model	1038914.439 <sup>b</sup>	6	173152.407	1622.287	.000
	System of Medicine	1038914.439	6	173152.407	1622.287	.000
	Error	51338.828	481	106.734		
	Total	1090253.267	487			

(Source: Primary Data, computed by the Author)

The F value for effectiveness is 795.80, which is significant at .01 level. It means that effectiveness is different with use of different systems of medicine. The F value for side effects is 24.68, which is significant at .01 level. It means that side effects are different with use of different systems of medicine. The F value for Convenience is 1593.70, which is significant at .01 level. It means that Convenience is different with use of different systems of medicine. The F value for Global Satisfaction is 1074.90, which is significant at .01 level. It means that Global Satisfaction is different with use of different systems of medicine. The F value for Total Satisfaction is 1622.28, which is significant at .01 level. It means that Total Satisfaction is different with use of different systems of medicine. It is further elaborated in section 6.13 of this chapter.

## 6.12 RELATIONSHIP OF INFLUENTIAL FACTORS TO MAKE A CHOICE WITH DIMENSIONS OF SATISFACTION FOR THE DIFFERENT SYSTEMS OF MEDICINE

**Table 6.12: Correlation between Influential Factors to make a choice with dimensions of Satisfaction for the different systems of medicine**

	Effectiveness		Side Effect		Convenience		Global Satisfaction		Total Satisfaction	
	R	Sig.	R	Sig.	R	Sig.	R	Sig.	R	Sig.
Effectiveness	.360	.000	-.067	.155	.304	.000	.188	.000	.122	.007
Holistic Approach	.157	.000	-.044	.344	.219	.000	.054	.231	.111	.014
Credibility	-.031	.489	-.047	.311	.067	.154	.197	.000	.060	.183
Popularity	-.003	.939	-.035	.451	.196	.000	.168	.000	.088	.052
Contemporary	.219	.000	.178	.000	.080	.093	-.240	.000	.139	.002
Expedient	.508	.000	.003	.951	.324	.000	.476	.000	.479	.000

(Source: Primary Data, computed by the Author)

The coefficient of correlation between effectiveness factor and effectiveness dimension of satisfaction is 0.360, which is significant at .01 level. It means there is

significant positive relationship between effectiveness factor and effectiveness dimension of satisfaction.

The coefficient of correlation between effectiveness factor and side effect dimension of satisfaction is -0.67, which is not significant. It means there is no significant relationship between effectiveness factor and side effect dimension of satisfaction.

The coefficient of correlation between effectiveness factor and Convenience dimension of satisfaction is 0.304, which is significant at .01 level. It means there is significant positive relationship between effectiveness factor and Convenience dimension of satisfaction.

The coefficient of correlation between effectiveness factor and global satisfaction dimension of satisfaction is 0.188, which is significant at .01 level. It means there is significant positive relationship between effectiveness factor and global satisfaction dimension of satisfaction.

The coefficient of correlation between effectiveness factor and Total satisfaction dimension of satisfaction is 0.122, which is significant at .01 level. It means there is significant positive relationship between effectiveness factor and Total satisfaction dimension of satisfaction.

The coefficient of correlation between Holistic approach factor and effectiveness dimension of satisfaction is 0.157, which is significant at .01 level. It means there is significant positive relationship between holistic approach factor and effectiveness dimension of satisfaction.

The coefficient of correlation between holistic approach factor and side effect dimension of satisfaction is -0.044, which is not significant. It means there is no significant relationship between holistic approach factor and side effect dimension of satisfaction.

The coefficient of correlation between holistic approach factor and Convenience dimension of satisfaction is 0.219, which is significant at .01 level. It means there is significant positive relationship between holistic approach factor and Convenience dimension of satisfaction.

The coefficient of correlation between holistic approach factor and global satisfaction dimension of satisfaction is 0.054, which is not significant at .01 level. It means there is no significant relationship between holistic approach factor and global satisfaction dimension of satisfaction.

The coefficient of correlation between holistic approach factor and Total satisfaction dimension of satisfaction is 0.111, which is not significant at .01 level. It means there is no significant relationship between holistic approach factor and Total satisfaction dimension of satisfaction.

The coefficient of correlation between Credibility factor and effectiveness dimension of satisfaction is -0.031, which is not significant at .01 level. It means there is no significant relationship between Credibility factor and effectiveness dimension of satisfaction. The coefficient of correlation between Credibility factor and side effect dimension of satisfaction is -0.047, which is not significant. It means there is no significant relationship between Credibility factor and side effect dimension of satisfaction. The coefficient of correlation between Credibility factor and Convenience dimension of satisfaction is 0.154, which is not significant at .01 level. It means there is no significant relationship between Credibility factor and Convenience dimension of satisfaction. The coefficient of correlation between Credibility factor and global satisfaction dimension of satisfaction is 0.197, which is significant at .01 level. It means there is significant positive relationship between Credibility factor and global satisfaction dimension of satisfaction. The coefficient of correlation between Credibility factor and Total satisfaction dimension of satisfaction is 0.060, which is not significant at .05 level. It means there is no significant relationship between Credibility factor and Total satisfaction dimension of satisfaction.

The coefficient of correlation between Popularity factor and effectiveness dimension of satisfaction is -0.003, which is not significant. It means there is no significant positive relationship between Popularity factor and effectiveness dimension of satisfaction. The coefficient of correlation between Popularity factor and side effect dimension of satisfaction is -0.035, which is not significant. It means there is no significant relationship between Popularity factor and side effect dimension of satisfaction. The coefficient of correlation between Popularity factor and

Convenience dimension of satisfaction is 0.196, which is not significant at .01 level. It means there is no significant relationship between Popularity factor and Convenience dimension of satisfaction. The coefficient of correlation between Popularity factor and global satisfaction dimension of satisfaction is 0.168, which is significant at .01 level. It means there is significant positive relationship between Popularity factor and global satisfaction dimension of satisfaction. The coefficient of correlation between Popularity factor and Total satisfaction dimension of satisfaction is 0.088, which is not significant. It means there is no significant positive relationship between Popularity factor and Total satisfaction dimension of satisfaction.

The coefficient of correlation between Contemporary factor and effectiveness dimension of satisfaction is 0.219, which is significant. It means there is significant positive relationship between Contemporary factor and effectiveness dimension of satisfaction. The coefficient of correlation between Contemporary factor and side effect dimension of satisfaction is 0.178, which is significant. It means there is significant relationship between Contemporary factor and side effect dimension of satisfaction. The coefficient of correlation between Contemporary factor and Convenience dimension of satisfaction is 0.080, which is not significant at .01 level. It means there is no significant relationship between Contemporary factor and Convenience dimension of satisfaction. The coefficient of correlation between Contemporary factor and global satisfaction dimension of satisfaction is -0.240, which is significant at .01 level. It means there is significant negative relationship between Contemporary factor and global satisfaction dimension of satisfaction. The coefficient of correlation between Contemporary factor and total satisfaction dimension of satisfaction is 0.139, which is significant. It means there is significant positive relationship between Contemporary factor and total satisfaction dimension of satisfaction.

The coefficient of correlation between Expedient factor and effectiveness dimension of satisfaction is 0.508, which is significant. It means there is significant positive relationship between Expedient factor and effectiveness dimension of satisfaction.

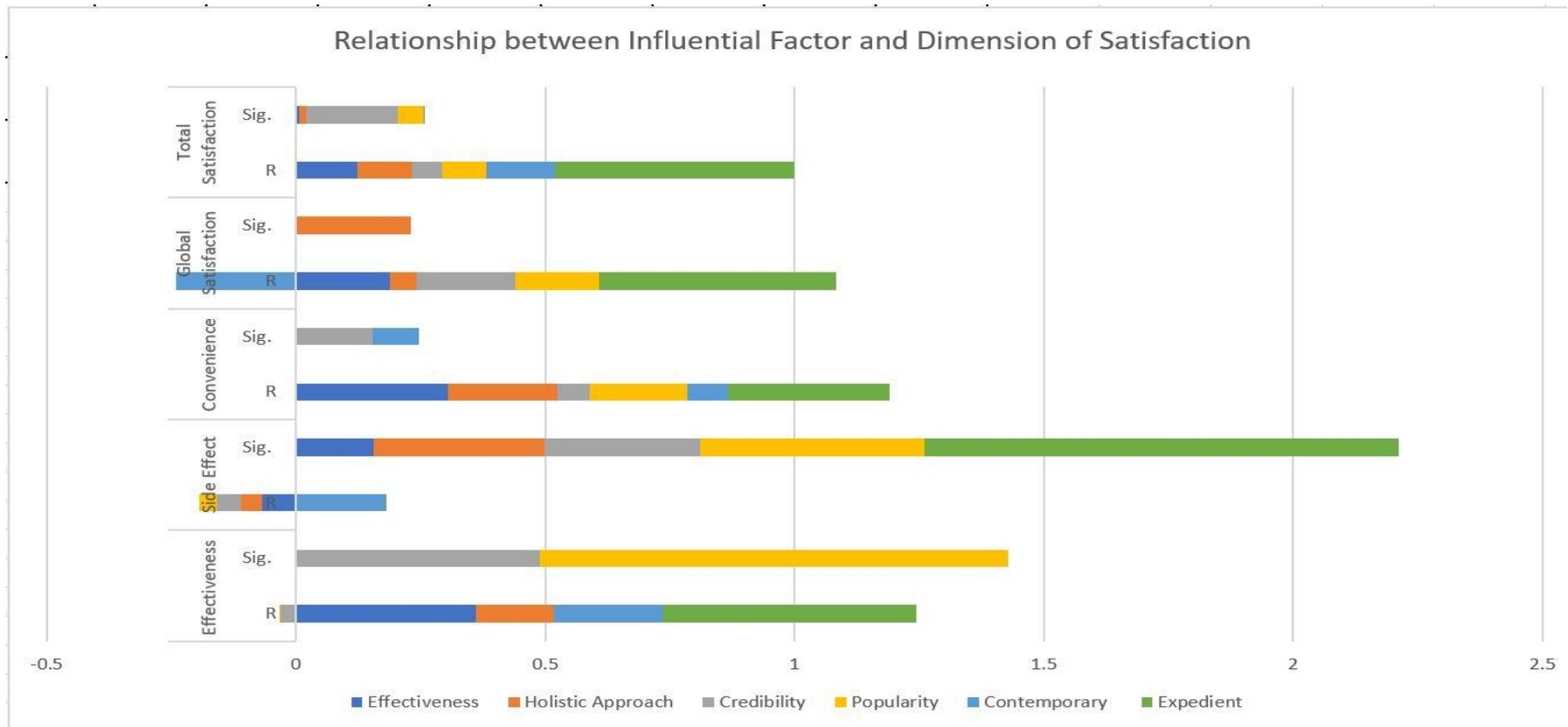


Figure 6.1: Relationship of Influential Factors to make a choice with dimensions of Satisfaction for the different systems of medicine

The coefficient of correlation between Expedient factor and side effect dimension of satisfaction is 0.003, which is not significant. It means there is no significant relationship between Expedient factor and side effect dimension of satisfaction. The coefficient of correlation between Expedient factor and Convenience dimension of satisfaction is 0.324, which is significant at .01 level. It means there is significant relationship between Expedient factor and Convenience dimension of satisfaction. The coefficient of correlation between Expedient factor and global satisfaction dimension of satisfaction is 0.476, which is significant at .01 level. It means there is significant negative relationship between Expedient factor and global satisfaction dimension of satisfaction. The coefficient of correlation between Expedient factor and total satisfaction dimension of satisfaction is 0.479, which is significant. It means there is significant positive relationship between Expedient factor and total satisfaction dimension of satisfaction.

Thus, it can be concluded that Total satisfaction for a particular system of medicine is related with effectiveness, contemporary and expedient factors of making a choice.

### 6.13 APPRAISING PREFERRED SYSTEM OF MEDICINE WITH REGARD TO DIFFERENT DIMENSIONS OF THE SATISFACTION

**Table 6.13: Mean scores of different dimensions of satisfaction for various systems of medicine**

System Preferred for treatment		Effectiveness	Side Effect	Convenience	Global Satisfaction	Total Satisfaction
Allopathy	Mean	16.41	1.77	12.36	14.69	45.20
	SD	4.392	3.942	3.021	3.974	7.726
Ayurveda	Mean	15.39	3.30	12.48	14.41	45.80
	SD	4.849	5.927	2.741	3.824	10.039
Homoeopathy	Mean	16.65	4.50	12.99	14.90	49.44
	SD	3.897	6.910	2.465	4.012	10.577
Unani and Siddha	Mean	15.03	4.74	12.47	14.27	46.92
	SD	4.910	7.657	3.054	3.868	11.636
Yoga & Naturopathy	Mean	14.99	1.76	12.84	14.30	44.00
	SD	4.908	4.433	2.085	3.622	9.698
Alternative Medicine	Mean	15.23	3.46	12.89	13.31	45.26
	SD	4.538	6.150	2.877	3.517	11.041

(Source: Primary Data, computed by the Author)



The mean value of effectiveness for allopathy is 16.41 with standard deviation 4.39. The mean value of effectiveness for Ayurveda is 16.39 with standard deviation 4.84. The mean value of effectiveness for Homeopathy is 16.65 with standard deviation 3.89. The mean value of effectiveness for Unani and Siddha is 15.03 with standard deviation 4.90. The mean value of effectiveness for Yoga and Naturopathy is 14.99 with standard deviation 4.90. The mean value of effectiveness for Alternative Medicine is 15.23 with standard deviation 4.53.

The mean value of side effects for allopathy is 1.77 with standard deviation 3.94. The mean value of side effects for Ayurveda is 3.30 with standard deviation 5.92. The mean value of side effects for Homeopathy is 4.50 with standard deviation 6.91. The mean value of side effects for Unani and Siddha is 4.74 with standard deviation 7.65. The mean value of side effects for Yoga and Naturopathy is 1.76 with standard deviation 4.43. The mean value of side effects for Alternative Medicine is 3.46 with standard deviation 6.50.

The mean value of Convenience for allopathy is 12.36 with standard deviation 3.021. The mean value of Convenience for Ayurveda is 12.48 with standard deviation 2.74. The mean value of Convenience for Homeopathy is 12.99 with standard deviation 2.46. The mean value of Convenience for Unani and Siddha is 12.47 with standard deviation 3.05. The mean value of Convenience for Yoga and Naturopathy is 12.84 with standard deviation 2.08. The mean value of Convenience for Alternative Medicine is 12.89 with standard deviation 2.87.

The mean value of Global Satisfaction for allopathy is 14.69 with standard deviation 3.97. The mean value of Global Satisfaction for Ayurveda is 14.41 with standard deviation 3.82. The mean value of Global Satisfaction for Homeopathy is 14.90 with standard deviation 4.01. The mean value of Global Satisfaction for Unani and Siddha is 14.27 with standard deviation 3.86. The mean value of Global Satisfaction for Yoga and Naturopathy is 14.30 with standard deviation 3.62. The mean value of Global Satisfaction for Alternative Medicine is 13.31 with standard deviation 3.51.

The mean value of Total satisfaction for allopathy is 42.20 with standard deviation 7.72. The mean value of Total Satisfaction for Ayurveda is 45.80 with standard

deviation 10.03. The mean value of Total Satisfaction for Homeopathy is 49.44 with standard deviation 10.57. The mean value of Total Satisfaction for Unani and Siddha is 46.92 with standard deviation 11.63. The mean value of Total Satisfaction for Yoga and Naturopathy is 44.00 with standard deviation 9.69. The mean value of Total Satisfaction for Alternative Medicine is 45.26 with standard deviation 11.04.

It can be concluded that the respondents are maximum satisfied with Homeopathy and least with Yoga and Naturopathy. Homeopathy scored better in all the dimensions of satisfaction, effectiveness (value) with a score of 16.65, side effects with a score of 4.50, convenience with a score of 12.99 and Total satisfaction score for Homeopathy was higher than any other systems of medicine with a score of 49.44. This difference was found to be statistically significant with a p value of .001 respectively.

Thus, from above discussion it is clear that significant differences are found in treatment satisfaction regarding system of medicine with respect to various socio-demographic factors like Age, Occupation, Marital status, type of Family, Education. Further, significant difference is also found between the influential factors for selecting the system of medicine and treatment satisfaction. Even the Significant difference is found between the different dimensions of satisfaction and different systems of medicine too.

As per above mentioned results null hypothesis i.e. H04: There is no significant difference between treatment satisfaction of respondents for different systems of medicine was not accepted and a significant difference between treatment satisfaction for different systems of medicine was found.

Hence, in the light of this, it can be said that the null hypothesis is rejected.

## CHAPTER – 7

### FINDINGS, SUGGESTIONS AND CONCLUSION

The study was aimed at awareness, influential factors and treatment satisfaction of patient for different system of medicine in the region of Punjab. The data was collected from both secondary as well as primary sources. Appropriate statistical tools like percentage, mean, cluster analysis, factor analysis, student t-test and correlation were employed. Based on results and discussions, the key findings and conclusions from this study has been recapitulated and presented in the following sections. Based on findings a few suggestions have also been recommended.

#### 7.1 MAJOR FINDINGS

##### 7.1.1 Awareness among respondents regarding different systems of medicine for healthcare

The patients are at times confused for choosing the system of medicine for attaining their preventive and curative health. Awareness regarding different system of medicine is a prerequisite for this. The system of medicine with high awareness level has high probability of getting preferred over others.

- Ayurveda is India's native system of medicine and people are well aware of the same. Allopathic treatment, which is commonly known as modern medicine, most respondents rated it also high on awareness levels, followed by other indigenous treatments like Homeopathy, Yoga, Unani or others.
- The awareness about Allopathy, Ayurveda, Homeopathy is high, and for Yoga it is moderate whereas Siddha, Unani and Alternative Medicine need more vigorous attention about their awareness as observed in this study.
- Even when respondents were asked about the familiarity to different system of medicine with aided recall on 7-point Likert scale the results were same as mentioned above for awareness (unaided recall).

- In health conditions namely common illness, infectious illness and chronic ailments Ayurveda, Homeopathy and Yoga treatment put together has emerged to be the equally preferred choice, though in Emergency, Surgery and acute illness allopathic medicine system is the preferred choice of treatment.
- Convenience of accessibility and familiarity for different systems of medicine is high for of Allopathy, Ayurveda, Homeopathy, Moderate for Yoga whereas low for Siddha, Unani and Alternative system of Medicine.
- Media is certainly playing important role as source of information on Allopathic and Ayurvedic system of medicine. It should promote other systems of medicine too.
- There is significant difference in internet users and usage of internet for health-related information. Very less people are making online purchase of health products, although good percentage of people are planning to do so.
- Major influencing factors for online purchase of health products include to avoid embarrassment by communicating with local seller, cheaper prices, availability of wide variety of products, better quality, better offers and deals.
- As good percentage of people are planning for online purchase of healthcare products therefore web merchants should target the patients with specific strategies as per the segments analysed in the study.
  - Unconventional – Launch and promotion of products and information related to acupuncture, reiki or any other alternative medicine can be more successful among age group from 46-60 years of male, residing in urban areas of Majja and Malwa region, specially who are professionals by occupation.
  - Traditional – Online programs and information related to Ayurveda and Homeopathy can be more successful among females of either 31-45 years or above 60 years of age group residing in rural areas of Doaba.
  - Organic – Online products, demonstrations related to Yoga, Unani and

Siddha system of medicine can be more successful in female population of either 18-30 years or 46-60 years residing in urban areas of Malwa and Majja.

- Modern – Online business related to allopathic medicine can flourish a lot in segments comprising males of 46-60 years of age group residing in rural areas of Malwa.
- Many of the respondents were found to use more than one system of medicine for disease prevention, cure and a better life. Reason can be their lack of awareness for effective and preferable system of medicine for their disorder.
- System of medicine should target their associated strengths as per WHO classification of diseases to develop the awareness among target audience accordingly.
- Convenience of accessibility and awareness might be the major factor which decides preference towards different system of medicine.
- On the whole people are not equally aware about the different systems of medicine and now the Govt., Pharmaceutical companies and media should play their due role in promoting them equally.

#### **7.1.2 Different segments of patients based on their choices for different systems of medicine**

- Following the cluster analysis, four clusters emerged, cluster 1-Unconventional, cluster 2-Traditional and cluster 3-Organic can be potential target clients for indigenous system of medicines (AYUSH) and cluster 4-Modern for the Allopathic system of medicine.
- Among those, Unconventional Cluster comprising people of age group from 46-60 years, male, residing in urban areas of Majja and Malwa region, professional by occupation either married or single, considering credibility and contemporary factor in relation to system of medicine very important should be the targets for healthcare service providers and drug manufacturers of Alternative system of medicine.

- Among those, Traditional Cluster comprising people of either 31-45 years or above 60 years of age group, female residing in rural areas of Doaba considering Holistic approach and Credibility factor in relation to system of medicine should be the targets for healthcare service providers and drug manufacturers of Ayurvedic and Homeopathic systems of medicine.
- Among those, Organic Cluster comprising people of either 18-30 years or 46-60 years, female, residing in urban areas of Malwa and Majja, considering holistic approach to be very important factor in relation to system of medicine should be the targets for healthcare service providers and drug manufacturers for Unani, Siddha, Yoga & Naturopathy system of medicine.
- Among those, Modern Cluster comprising people of 46-60 years of age group, male, residing in rural areas of Malwa considering effectiveness to be very important factor in relation to system of medicine should be the targets for healthcare service providers and drug manufacturers for Allopathic system of medicine.
- Health insurance seems to be benefitting people inclined towards modern or alternative system of medicine. Hence policies can be made to attract or service people preferring AYUSH system of medicine too.
- As per the importance rated by the people for various factors influencing the choice of medicine it is found that Allopathy system of medicine should improve in their Holistic approach, AYUSH should improve for Contemporary and effectiveness factor and Alternative Medicine should take care of their Credibility and Expedient factor.
  - Allopathy system of medicine can improve by integrating recommending lifestyle modifications related to diet, exercise and stress etc. along with the medicines.
  - AYUSH can improve by use of modern diagnostic and curative tools and technologies in their practice. They should also evolve the treatments which can give immediate relief in emergency, surgical and acute disorders.

- Alternative Medicine can improve by publishing scientific research in their area of treatment. Further, treatments like Reiki, Acupressure and other forms of alternative medicine should prove themselves scientifically for being useful and efficient.

### **7.1.3 Factors influencing patients' choice for selecting system of medicine**

Six factors emerged, namely the Holistic approach, Credibility, effectiveness, popularity, contemporary and expedient as of importance while making a choice for any system of medicine.

- The first factor dealt i.e. Holistic approach with complete care, Inclusion of – stress relieving technique, diet plan, lifestyle changes along with medication, recommended by friends and family and professional competencies of the doctor.
- Second Factor i.e. Credibility dealt with the explanation of side effects at time of prescription, Location accessibility, Behavior of Doctor, Scientific based approach, use of health care equipment, timely access and cost of treatment.
- Third Factor i.e. popularity dealt with the name and fame which includes coverage under health insurance, good media reports, located in proximity and potential for prevention of disease
- Fourth Factor i.e. Contemporary includes Involvement of technology, Comprehensive treatment potentials and Ages of existence
- Fifth Factor i.e. Effectiveness dealt with the aspects like Instant Relief from illness, All-Rounded approach and Minimal Side effects
- Sixth Factor i.e. Expedient which means convenient and practical dealt with being Organic or natural, ability to handle emergency and provide symptomatic relief.
- It is found that while practicing any system of medicine practitioners must include lifestyle modification guidelines, scientific approach, good media reports, comprehensive treatment potential, instant relief, continence and practical

approach to attract people and treating them effectively, as these factors are found to be important while making a choice.

#### **7.1.4 Association between factors affecting choice of treatment and different systems of medicine**

- This study determines the probability of a client to be influenced with the factors which are based on their demographic characteristics and significant important extracted factor analysis and cluster analysis while making a choice towards different system of medicine.
- Based on the analysis by using discriminant analysis, the most important variables in the present study are Holistic approach, Credibility, Contemporary, Effectiveness, Expedient, Age, Type of family and Medical insurance, for making a choice towards the system of medicine.
- This study clearly reflects that most influencing factor in people of Punjab while choosing a system of medicine is the **“Type of family”**. As in our society family is the closest and is involved collectively in decision making. Financial security through a safety cushion of **“Medical Insurance”** comes second. Most of the Healthcare burden in our society is borne by the individuals, so medical insurance is justifiable relative second important factor while deciding to choose a system of medicine. Next influencing factor is **“Age”**. As we age in this world, the maturity and learning from experiences let us decide the preferred system of medication. The same way we have other relative factors like **holistic approach, credibility, effectiveness, Expedient and Contemporary** in sequence of their influence, while making a choice towards different system of medicine.

#### **7.1.5 Treatment satisfaction with different systems of medicine**

- Treatment satisfaction is significantly differently among various age groups, occupations, marital status, education level and region of residence.
  - The satisfaction from system of medicine is most for the people of age group greater than 60 years. People with growing age tend to develop lifelong diseases and are more consistent with their treating doctors. Whereas, the youth, are keen to have quick solutions to their problems



and therefore are more likely to be dissatisfied. People aged between 31 and 45 years, have the lowest patient satisfaction scores.

- The satisfaction from system of medicine is most for government employees.
  - The satisfaction from system of medicine is more for respondents who studied at various levels of Higher Education Institution, when compared with school educated respondents.
  - Further, mean scores show that nuclear families are significantly more satisfied than joint families.
  - The people of Doaba region of Punjab are most satisfied with system of medicine. Key reason for this can be the healthcare standing of one of the major cities in Doaba region - Jalandhar. It has emerged as the Asia's 'biggest' Medicare hub with over 800 super-specialty, multi-specialty centres, nursing homes and clinics — largest on per capita basis as compared to any other city of Asia.
- Treatment satisfaction is not significant across the Genders, religion, place of residence (urban/rural), types of family.
  - Reason of satisfaction with different systems of medicine is more with government employees which can be due to the Government Employees Medical Scheme (GEMS). Therefore, private companies should also provide their employees good access to affordable and comprehensive system of medicine.
  - Across the different systems of medicine treatment satisfaction doesn't vary statistically based on the factor whether you are medically insured or not.
  - Effectiveness, Side effects, Convenience and Global Satisfaction is different with use of different systems of medicine
  - Influential factors to choose treatment when compared with dimensions of satisfaction following results were found.

- No significant relationship found between, Effectiveness factor to side effect dimension, Holistic approach factor to side effect, Total satisfaction factor, Credibility factor to effectiveness, side effect, convenience and total satisfaction dimension, Popularity factor to effectiveness, side effects and total satisfaction dimension, Contemporary factor to Convenience dimension, expedient factor to side effect dimension.
- Rest all other factors and dimensions are related to each other with effectiveness, contemporary and expedient factors have been most significantly related with Total satisfaction towards different system of medicine.
- People of Punjab following different system of medicine in managing their illness with different systems of medicine. However, Total satisfaction is highest for Homeopathy and lowest for Yoga & Naturopathy.
- It is found that if Allopathy system of medicine work on the dimension of minimising Side effects, Yoga on improving effectiveness, Alternative system of medicine bringing improvements in Global Satisfaction and Ayurveda in making ingesting of their medicines Convenient, then they can improve in their satisfaction scale among the people of Punjab.

## 7.2 SUGGESTIONS

Healthcare System of Punjab can advance with generating awareness and enhancing treatment satisfaction with different systems of medicine existing in the region. It is suggested that for Allopathy, AYUSH Medical Systems i.e. Ayurveda, Yoga, Unani & Siddha, Homoeopathy and Alternative Medicine following steps can be taken for their development.

- Policies, rules & regulations related to Government Financial support for Systems of Medicines should be either developed or improved and equally distributed for all the system of medicines in justified manner. This will

rearrange the economic, social & physical environment of healthcare system to enable citizens to make choices of their own.

- Development of Database Management System including Success Stories and Research highlights of indigenous system of medicine AYUSH. It should be compiled and auto reflected in Health-related search engine for generating the awareness on practitioner's evidence-based stories highlighting cure, patient choices for diagnosis, treatment, medicines, medical equipment and cost of treatment.
- Primary Healthcare Centres (PHCs) should be established in rural as well as urban community in equal proportion for easy accessibility and awareness. There are considerable challenges in reaching the communities equally in urban as well as rural areas too to ensure fair outcomes. The policy regarding the establishment of Primary Healthcare Centres requires improvement as focus so far has been on few systems of medicine only. More PHCs to be planned for different systems of medicine.
- Ayurveda and Yoga System of medicines is well known for prevention of disease rather than cure only. They should be promoted for medical tourism in Punjab as done in South of India. In fact, other indigenous systems of medicine due to their natural methodology of treatment may be promoted to establish Wellness and Rejuvenation Centres for providing high quality health services at very low and cost-effective treatment for many chronic diseases like musculoskeletal disorders, digestive system disorders, psychological disorders and skin problems etc.
- There is a quantum leap in the number of foreign tourists visiting Punjab in past few years as medical treatment is very costly in foreign. Generating awareness towards all the systems of medicine will help boost the state's economy.
- The private sector like media and pharmaceutical companies should dedicate equally justified budget for all systems of medicines through conservative modes of promotion including modern usage of social media. The use of

social media in health care is increasing day by day promoting health awareness and help to communicate with people around the world by creating videos regarding health awareness and creating interactive health sessions.

- Tie-ups and partnership with Global companies of good reputation is also suggested. Like establishment of Ayurveda Rejuvenation centres, Yoga Centres for their employees can improve awareness as well as satisfaction in corporate sectors. Such tie ups may gradually add to exhibit state owned enterprises and highlight government for increasing levels of Healthcare participation in ensuring prevention and cure of diseases.
- It is suggested for people of Punjab that other than cost, quality and reference, the choice towards system of medicine should be based on its holistic approach which includes diet guidance, instructions regarding physical activity, psychological and spiritual counselling too. It is further suggested that while making a choice people must know the effectiveness of the system of medicine towards the category of their ailment.
- It is suggested to healthcare administrators that they must improve certain factors pertaining to their system of medicines. It should be credible, contemporary and most importantly expedient. Research studies should be carried on to make the system of medicine more practical, appropriate and apt as depending upon category of disease like acute, chronic, emergency, surgery, common ailments & infectious disorder.
- The choice of System of Medicine should be irrespective of religion, caste, area and income status. The Healthcare system should be serving adequately to all castes, religions; avoiding individualism to minimise marginalities and inferior health outcomes. The guidelines may be revised and implemented for the Healthcare providers practicing unequal access to health services.
- Making a choice for system of medicine should condemn the factor called incentivization and other monetary benefits of practice. The new rules and laws to be enforced to ensure the cost-effective, value-added health care

system with zero tolerance to unethical practices in health services. The Healthcare Service providers must be encouraged to support anti incentivization measures.

- Since the factors Holistic approach, Credibility, Contemporary, Effectiveness, Expedient, Age, Type of family and Medical insurance are found to influence the clients in deciding a type of medical treatment, more efforts can be made by various stake-holders to develop improved ideas in targeting different segments with a wider range of healthcare services.
- The people of Punjab should have equal accessibility to all the systems of medicine and therapies instead of few of them. They also must have an alternative access too in order to treat the cause of the illness, not only just relieving the symptoms.
- As the systems of medicine are equivalent to the service industry, it should be evaluated based on quality of treatment provided, easy accessibility, and affordability. The quality of service and care provided to the patient should be beyond expectations and up to their complete satisfaction.
- Effectiveness, minimal side-effects and convenience with the system of medicine are important dimensions of treatment satisfaction and hence must be evolved by the practitioner's from time to time.
- The healthcare service providers should continuously re-engineer and redesign their quality management processes by adding supportive services like diagnostic tools & latest equipment to reorient the future directions of their more effective health-care quality strategies.
- System of medicine should enhance satisfaction which will contribute towards the economic growth as it will lesser absence of people from duty due to health ailments, lower expenditure towards the medical treatments & faster recovery with maximum potential. It may reduce the expenditure on health or higher returns against expenditure on health.

- The satisfaction with system of medicine will boost loyal clientele base for healthcare service provider. The patient may continue availing health service to same healthcare provider in spite of switching to the others.
- The healthcare provider should avoid treating patients as customer to generate revenue; the good healthcare service should be focused with taking patient-centric perspective and target their satisfaction in terms of effectiveness, affordability, minimal side effects and convenience to use.
- Modern Healthcare supporting services; like Healthcare related discoveries, innovation of equipment and machinery and Diagnostic measures should be equally applicable to all Modern as well as indigenous system of medicine. Such discovering or methods should not be stick to any particular system of medicine. These supporting services and innovations will add to improve patient satisfaction.

Consequently, above stated suggestions will lead to advancements by Government, health care administrators, medical professionals, Semi Government/Private companies, media and Pharmaceutical agencies which will strengthen the integrated approach towards the awareness, choice and satisfaction with modern as well as indigenous system of medicines in the region of Punjab.

### **7.3 CONCLUSIONS**

The purpose of my research is based on the fact that there is no established study in Punjab Healthcare Systems related to awareness, influential factors to make a choice and satisfaction with Modern system of medicine (Allopathy), AYUSH Systems of Medicines i.e. Ayurveda, Yoga, Unani & Sidha, Homoeopathy and Alternative Medicines amongst Allopathy. The research includes observations and suggestions for providing broader spectrum for patients to choose/select the system of medicine appropriate as per their category of disorder and further on their physical, mental, spiritual, social and economical needs. This research also enlightens about the client satisfaction-based evaluation of Healthcare Services provided about the quality of treatment, effectiveness, minimal side effects and convenience up to their expectations. This study will also be suggestive for all the stake holders of the

Healthcare Service for improvement of promotion, establishment of infrastructure and better delivery of health care services.

This study may be summarised as improvement in policies, initiatives to establish Primary Healthcare Centres of AYUSH System of Medicines in equal proportions in rural as well as Urban regions, development of data base of Healthcare services, launch of medical tourism as per strengths of different systems of medicines, boost in the state's economy by encouraging the tie ups and partnerships with Global Healthcare Companies. The development of feedback and evaluation systems will also help to increase Loyal clientele and improvisation of more effective health-care quality strategies.

The relevance of this study clears the vision and role of all the stake holders related to Healthcare Service like;

- The Government will ascertain the development of new or improvement of existing policies related to various factors like branding of various Systems of Medicines, financial support for infrastructure development and evaluations leading to increase in client satisfaction with various healthcare systems.
- The Medical Practitioner and Healthcare Service providers must practice with holistic approach towards the patients along with continuous advancement in effectiveness, credibility, contemporary and expedient factors related to the systems of medicine.
- The Healthcare Administrator must ensure the enforcement of newly developed or improved existing laws, rules & regulations related to financial support for awareness about healthcare systems of medicines, tie ups and partnership with companies/agencies of national/global repute for establishment of centres, branding of various Systems of Medicines and to abandon unethical practices.
- The private sector like media and pharmaceutical companies should dedicate equally justified budget for branding and promotion of all systems of medicines through conservative modes of promotion including modern usage of electronic/social media.

Hence, this efforts by Government, Semi Government/Private companies, medical professionals, healthcare administrators, media and Pharmaceutical agencies on awareness, factors influencing the choice of treatment and patient satisfaction will raise the level of Punjab Healthcare Services up to the highest ranks nationally as well as globally.

#### **7.4 SCOPE FOR FUTURE RESEARCH**

- A nation-wide study should be conducted to collect specified data on patient awareness and satisfaction with modern (Allopathy), indigenous (AYUSH) and alternative systems of medicine on the basis of which necessary health and family welfare programs can be prepared.
- Studies around assessment of feasible schemes to improve the awareness levels of AYUSH and Alternative system of medicine in Punjab to be designed in future.
- It is expected that information provided by this study will help health policy makers and planners to formulate proper plan to improve healthcare system in Punjab.
- Necessary development program should be undertaken around factors identified in this study to maximize satisfaction and hence improving patient retention towards different systems of medicine.



## REFERENCES

- Abbas Tashakkori and Teddlie, C. (2010). *SAGE handbook of mixed methods in social & behavioral research*. Thousand Oaks, Calif.: Sage Publications.
- Adams, D., Cheng, F., Jou, H., Aung, S., Yasui, Y. and Vohra, S. (2011). The Safety of Pediatric Acupuncture: A Systematic Review. *PEDIATRICS*, 128(6), pp.e1575–e1587
- Adams, J., Barbery, G. and Lui, C.-W. (2013). Complementary and Alternative Medicine Use for Headache and Migraine: A Critical Review of the Literature. *Headache: The Journal of Head and Face Pain*, 53(3), pp.459–473.
- Amrutia, P. and Dave, D. (2017). Prevailing Tenor for Ayurveda in Views of Ayurvedic Practitioners. *Asian Journal of Management*, 8(4), p.1029.
- Ang-Lee, M.K. (2001). Herbal Medicines and Perioperative Care. *JAMA*, 286(2), p.208.
- Bahuguna, P., Mukhopadhyay, I., Chauhan, A.S., Rana, S.K., Selvaraj, S. and Prinja, S. (2018). Sub-national health accounts: Experience from Punjab State in India. *PLOS ONE*, 13(12), p.e0208298.
- Bair, A.E., Filbin, M.R., Kulkarni, R.G. and Walls, R.M. (2002). The failed intubation attempt in the Emergency Department: analysis of prevalence, rescue techniques, and personnel. *The Journal of Emergency Medicine*, 23(2), pp.131–140.
- Barrett, B. (2003). Alternative, Complementary, and Conventional Medicine: Is Integration Upon Us? *The Journal of Alternative and Complementary Medicine*, 9(3), pp.417–427.

- Bausell, R.B., Lee, W.-L. and Berman, B.M. (2001). Demographic and Health-Related Correlates of Visits to Complementary and Alternative Medical Providers. *Medical Care*, 39(2), pp.190–196.
- Bhattacharya, J. (2014). The genesis of hospital medicine in India : The Calcutta Medical College (CMC) and the Emergence of a New Medical Epistemology. *The Indian Economic & Social History Review*, 51(2), pp.231-264.
- Blessing, B. (2011). The Connection Between Homoeopathy and Naturopathy. In: *Pathways of Homoeopathic Medicine*. Berlin, Heidelberg.: Springer, pp.39–50.
- Caspi, O., Sechrest, L., Pitluk, H. C., and Marshall, C. L. (2003). On the definition of complementary, alternative, and integrative medicine: societal megastereotypes vs. the patients' perspectives. *Alternative Therapies in Health and Medicine*, 9(6), p.58.
- Chandra Prakash Kala, P. P. D. B. S. S., (2006). Developing the medicinal plants sector in northern India: challenges and opportunities. *Journal of Ethnobiology and Ethnomedicine*, Volume 2, p. 32
- Chatterjee, B., Pancholi, J. and Biswas, P. (2012). Health awareness and popularity of alternative medicines among people of Jamnagar town: A cross - sectional study. *AYU (An International Quarterly Journal of Research in Ayurveda)*, 33(1), p.33.
- Chokshi, M., Patil, B., Khanna, R., Neogi, S. B., Sharma, J., Paul, V. K., and Zodpey, S. (2016). Health systems in India. *Journal of Perinatology*, 36, pp. S9-S12
- Chollet, D. J. (1996). Redefining private insurance in a changing market structure. *The Baxter Health Policy Review*, 2, pp.33-62.

- Clark, A.J. (2011). The Age of Allopathy and Homeopathy. In *The Art and Science of Healing Since Antiquity*. Berlin, Heidelberg.: Springer, p.237.
- Connell, J., 2011. A new inequality? Privatisation, urban bias, migration and medical tourism. *Asia Pacific View Point*, 52(3), pp. 260-271.
- Creswell, J.W. (2012). *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research*. 4th ed. London, United Kingdom: Pearson.
- Creswell, J.W. (2013). *Qualitative inquiry & research design : choosing among five approaches*. Los Angeles: Sage Publications.
- Creswell, J.W. and J David Creswell (2018). *Research design : qualitative, quantitative & mixed methods approaches*. Los Angeles: Sage.
- Denzin, N. K., & Lincoln, Y. S. (Eds.). (2011) *The Sage handbook of qualitative research*. Los Angeles: Sage.
- Dhopeshwarkar, R.V., Kern, L.M., O'Donnell, H.C., Edwards, A.M. and Kaushal, R. (2012). Health Care Consumers' Preferences Around Health Information Exchange. *The Annals of Family Medicine*, [online] 10(5), pp.428–434.
- Druss, B.G. (1999). Association Between Use of Unconventional Therapies and Conventional Medical Services. *JAMA*, 282(7), p.651.
- Eisenberg, D.M., Davis, R.B., Ettner, S.L., Appel, S., Wilkey, S., Van Rompay, M. and Kessler, R.C. (1998). Trends in Alternative Medicine Use in the United States, 1990-1997. *JAMA*, 280(18), p.1569.
- Eisenberg, D.M., Kessler, R.C., Foster, C., Norlock, F.E., Calkins, D.R. and Delbanco, T.L. (1993). Unconventional Medicine in the United States -- Prevalence, Costs, and Patterns of Use. *New England Journal of Medicine*, 328(4), pp.246–252.

- Eisenberg, D.M., Kessler, R.C., Van Rompay, M.I., Kaptchuk, T.J., Wilkey, S.A., Appel, S. and Davis, R.B. (2001). Perceptions about Complementary Therapies Relative to Conventional Therapies among Adults Who Use Both: Results from a National Survey. *Annals of Internal Medicine*, 135(5), p.344.
- Ernst, E. (2000). Prevalence of complementary/Alternative medicine : a systematic approach review. *Bulletin of the world health organization*, 78, pp.258–266.
- Ernst, E. (2001). Complementary therapies in palliative cancer care. *Cancer*, 91(11), pp.2181–2185.
- Eskinazi, D.P. (1998). Factors That Shape Alternative Medicine. *JAMA*, 280(18), p.1621.
- Fleming, S.A. and Gutknecht, N.C. (2010). Naturopathy and the Primary Care Practice. *Primary Care: Clinics in Office Practice*, 37(1), pp.119–136.
- Flick, U. (2015). *Introducing research methodology : a beginner's guide to doing a research project*. Los Angeles: Sage.
- Freedman, D. (2009). *Statistical models : theory and practice*. Cambridge: Cambridge University Press.
- Gall, A., Anderson, K., Adams, J., Matthews, V. and Garvey, G. (2019). An exploration of healthcare providers' experiences and perspectives of Traditional and complementary medicine usage and disclosure by Indigenous cancer patients. *BMC Complementary and Alternative Medicine*, 19(1).
- Glogowska, M. (2011). Paradigms, Pragmatism and Possibilities: Mixed-methods Research in Speech and Language Therapy. *International Journal of Language & Communication Disorders*, 46, pp.251-260.
- Gershwin, C. C. & M. E., 2013. Integrative Medicine in Allergy and Immunology. *Clinical Reviews in Allergy & Immunology*, Volume 44, pp. 208-228.

- Gyasi, R. M. M. C. M., 2011. Public Perceptions of the Role of Traditional Medicine in the Health Care Delivery System in Ghana. *Global Journal of Health Science*, 3(2), pp. 40-49.
- Haarbauer-Krupa, J., Ciccia, A., Dodd, J., Ettl, D., Kurowski, B., Lumba-Brown, A. and Suskauer, S. (2017). Service Delivery in the Healthcare and Educational Systems for Children Following Traumatic Brain Injury. *Journal of Head Trauma Rehabilitation*, 32(6), pp.367–377.
- Harris, P., Finlay, I.G., Cook, A., Thomas, K.J. and Hood, K. (2003). Complementary and alternative medicine use by patients with cancer in Wales: a cross sectional survey. *Complementary Therapies in Medicine*, 11(4), pp.249–253.
- Hausman, G. J. (1997). Siddhars, alchemy and the abyss of tradition: 'Traditional' Tamil medical knowledge in 'modern' practice.
- Hibbard, J.H. and Weeks, E.C. (1987). Consumerism in Health Care Prevalence and Predictors. *Medical Care*, 25(11), pp.1019–1032.
- Horneber, M., Bueschel, G., Dennert, G., Less, D., Ritter, E. and Zwahlen, M. (2011). How Many Cancer Patients Use Complementary and Alternative Medicine. *Integrative Cancer Therapies*, 11(3), pp.187–203.
- Jackson, K. and Bazeley, P. (2013). *Qualitative data analysis with NVivo*. London ; Los Angeles I.E. Thousand Oaks, Calif.: Sage Publications.
- Jakes, D. (2014). *The Perceptions and Experiences of Acupuncture users: A New Zealand Perspective*. Thesis.
- Jonker, J. and Pennink, B. (2010). *The Essence of Research Methodology: A Concise Guide for Master and PhD Students in Management Science*. New York: Springer.

- Kaptchuk, T.J. and Eisenberg, D.M. (1998). Chiropractic. *Archives of Internal Medicine*, [online] 158(20), p.2215.
- Keith Francis Punch (2014). *Introduction to social research: quantitative and qualitative approaches*. Los Angeles Etc.: Sage.
- Kewlani, S., and Singh, S. (2012). Prospects of Traditional Therapy: Consumer's Perception an Empirical Study of Rural Market with Special Reference to Indore District. *International Journal of Research in Computer Application & Management*, 2(8), pp.108-111.
- Kothari, C.R. (2019). *Research methodology: methods and techniques*. New Delhi: New Age International (P) Limited, Publishers.
- K.Kumanyika, (2008). Environmental influences on childhood obesity: Ethnic and cultural influences in context. *Physiology & Behavior*, Volume 94, (Issue 1), pp. 61-70.
- Kumar, R. (2019). *Research methodology: a step-by-step guide for beginners*. Los Angeles [U.A.] Sage.
- Kumar, R., Jaiswal, V., Tripathi, S., Kumar, A. and Idris, M.Z. (2007). Inequity in Health Care Delivery in India: The Problem of Rural Medical Practitioners. *Health Care Analysis*, 15(3), pp.223–233.
- Kumari, R., Idris, M., Bhushan, V., Khanna, A., Agarwal, M. and Singh, S. (2009). Study on patient satisfaction in the government allopathic health facilities of Lucknow district, India. *Indian Journal of Community Medicine*, 34(1), p.35.
- Lakshmanan, K.K. (2003). Marketing Potentials of Phyto Medicines, *Kisan World*, 30 (3), pp. 55-56.
- Lupton, D., Donaldson, C. and Lloyd, P. (1991). Caveat emptor or blissful ignorance? Patients and the consumerist ethos. *Social Science & Medicine*, 33(5), pp.559–568.

- Lyngdoh, L. M. (2015). Inter-State Variations in Rural Healthcare Infrastructure in North-East India. *The NEHU Journal*, XIII(2), pp. 31-48.
- Mackasare, S. (2016). Consumer Predilections for Medical Treatment: A Predictive Study in Selected Areas of Pune Region, Maharashtra. *IUP Journal of Management Research*, 15(4).
- Mahesh, T.S. (2011). Analysis of Influence of Marketing on Sale of Ayurvedic Drugs. *International Research Journal of Pharmacy*, 2 (10).
- Manfred Anlauf, L. H. H.-W. H. J. K. R. L. R. L. a. B. S.-S., 2015. Complementary and alternative drug therapy versus science-oriented medicine. *Ger Med Sci*, Doc05(Jun 23), p. 13
- Mann, D., Gaylord, S. and Norton, S. (2004). Moving Toward Integrative Care: Rationales, Models, and Steps for Conventional-Care Providers. *Complementary health practice review*, 9(3), pp.155–172.
- Markman, M. (2002). Safety Issues in Using Complementary and Alternative Medicine. *Journal of Clinical Oncology: Official Journal of the American Society of Clinical Oncology*, 20(18), pp.39S–41S.
- Meesala, A. and Paul, J. (2018). Service quality, consumer satisfaction and loyalty in hospitals: Thinking for the future. *Journal of Retailing and Consumer Services*, 40, pp.261–269.
- Melchart, D., Weidenhammer, W., Streng, A., Reitmayr, S., Hoppe, A., Ernst, E. and Linde, K. (2004). Prospective Investigation of Adverse Effects of Acupuncture in 97 733 Patients. *Archives of Internal Medicine*, 164(1), p.104.
- Mishra Divya, S. B. G. V. a. C. V., 2016. Self-Medication Among Adults in Urban Udupi Taluk, Southern India. *International Journal of Medicine and Public Health*, 6(3), pp. 126-129

- M Parthipan, V. A. a. A. R., 2011. Medico - botanical study of Yercaud hills in the eastern Ghats of Tamil Nadu, India. *Anc Sci Life* ., 30(4)(Apr-Jun), p. 104–109.
- Naaz, F. (2019). A Study of Service Utilization and Patient Satisfaction among Patients Attending State level AYUSH Hospital in Delhi. *Journal of Ayurvedic and Herbal Medicine*, 5(1), pp.1–6.
- Nabi, M. M., Taher, M. A., Sheikh, H., Dulal, M. S. R., Alam, M. K., & Islam, M. M. (2015). A Study on Attitude and Satisfaction of Patients Towards Unani and Ayurvedic Health Care Service Within Medical Pluralism in the Context of Bangladesh. *International Journal of Pharmaceutical Sciences and Research*, 6(6), pp. 2557-2568.
- Norheim, A. J. and Fønnebø, V. (1996). Acupuncture Adverse Effects are more than Occasional Case Reports: Results from Questionnaires Among 1135 Randomly Selected Doctors, and 197 Acupuncturists. *Complementary Therapies in Medicine*, 4(1), 8-13.
- Norheim, A.J. (1996). Adverse Effects of Acupuncture: A Study of the Literature for the Years 1981-1994. *The Journal of Alternative and Complementary Medicine*, 2(2), pp.291–297.
- Padgett, D. K. (2016). *Qualitative methods in social work research (Vol. 36)*. Los Angeles: Sage.
- Parekh, M. and Saleena, B. (2015). Designing a Cloud Based Framework For Healthcare System and Applying Clustering Techniques for Region Wise Diagnosis. *Procedia Computer Science*, 50, pp. 537-542.
- Patel, V., Parikh, R., Nandraj, S., Balasubramaniam, P., Narayan, K., Paul, V.K., Kumar, A.K.S., Chatterjee, M. and Reddy, K.S. (2015). Assuring health coverage for all in India. *The Lancet*, [online] 386(10011), pp.2422–2435.



- Piscitelli, S. (2000). Preventing Dangerous Drug Interactions. *Journal of the American Pharmaceutical Association*, 40(5) Suppl 1), 44-5.
- Piscitelli, S. C., Burstein, A. H., Welden, N., Gallicano, K. D., & Falloon, J. (2002). The Effect of Garlic Supplements on the Pharmacokinetics of Saquinavir. *Clinical Infectious Diseases*, 34(2), pp.234-238.
- Premachandra, M. K. (2011). The Growing Importance of Traditional, Alternative and Complementary Medicine in India. *Universitas Forum* , 2(2).
- Rastogi, R. (2012). Naturopathy in India : Current Status and Future Challenges. *Annals of Ayurvedic Medicine*, 1(4).
- Rein M. G. J. Houben, P. J. D., 2016. The Global Burden of Latent Tuberculosis Infection: A Re-estimation Using Mathematical Modelling. *Plos Medicine*, 13(10), p. e1002152.
- S Sarantakos (2013). *Social research*. New York, Ny: Palgrave Macmillan.
- Samal, J. and Dehury, R.K. (2018). Utilization, preference, perception and characteristics of people adopting traditional and AYUSH systems of medicine in India: a systematic review. *Journal of Complementary and Integrative Medicine*, 16(2).
- Schempf, A. H., Kaufman, J. S., Messer, L. C., and Mendola, P. (2011). The Neighborhood Contribution to Black-White Perinatal Disparities: An Example from Two North Carolina Counties, 1999–2001. *American Journal of Epidemiology*, 174 (6), pp.744-752.
- Shank, G.D., Pringle, J. and Brown, L. (2018). *Understanding education research : a guide to critical reading*. New York, Ny: Routledge.
- Shankar, D. (2015). Health sector reforms for 21stcentury healthcare. *Journal of Ayurveda and Integrative Medicine*, [online] 6(1), p.4.

- Silverman, D. (2016). *Qualitative research*. Los Angeles: Sage.
- Simrandeep K. Bhatti, R. P. S. ,. I. S., 2015. Analytical model for performance measurement in healthcare sector of Punjab. *Journal of Modelling in Management*, Volume 10( Issue 2), pp. 226-237.
- Singh, N. D. (2010). Rural healthcare and indebtedness in Punjab. *Economic and Political Weekly*, 45(11), pp. 22-25.
- Snyderman, R. and Weil, A.T. (2002). Integrative Medicine. *Archives of Internal Medicine*, 162(4), p.395.
- Srikanth, N., Bhat, S., Singh, A., & Singh, R. (2015). Healthcare Seeking Attitude and Utilization of Traditional Medicine in India-An Overview. *World J Pharmaceutical Res*, 4(7), pp.722-38.
- Subbarayappa, B. V. (1997). Siddha Medicine: An Overview. *The Lancet*, 350 (9094), pp.1841-1844.
- Suganya, R., and Hamsalakshmi, R. (2017). A Study on customer Buying Behavior of selected Ayurvedic Healthcare Products. *International Journal of Advanced Research and Development*, 2(2), pp.13-18.
- Unnikrishnan, et.al. (2007). Role of Traditional Medicine in Publiith Health. *Indian Journal of Marketing*, 22 (5), pp.15-20.
- Valiathan, M. S. (2006). Ayurveda: Putting the House in Order. *Current Science*, 90(1), pp.5-6.
- Vijai Kumar Singh, P. L., 2015. *Innovations in Healthcare Management: Cost-Effective and Sustainable Solutions*. Feb ed. Boca Raton: CRC Press
- Vincent, C. (2001). The safety of acupuncture. *BMJ*, 323(7311), pp.467–468.

- White, A.R. and Ernst, E. (2000). Economic analysis of complementary medicine: a systematic review. *Complementary Therapies in Medicine*, 8(2), pp.111–118.
- William B.Lober, J. L., 2011. Consumer Empowerment in Health Care Amid the Internet and Social Media. *Seminars in Oncology Nursing*, Volume 27(Issue 3), pp. 169-182
- Wisdom, J.P., Cavaleri, M.A., Onwuegbuzie, A.J. and Green, C.A. (2011). Methodological Reporting in Qualitative, Quantitative, and Mixed Methods Health Services Research Articles. *Health Services Research*, [online] 47(2), pp.721–745.
- Wolf PhD, CPXP, and Jason, A. (2014). Defining patient experience. *Patient Experience Journal*, 1(1), pp.7-19.
- Wolfson, V. (2003). The Puzzle of Acupuncture. *The American Journal of Chinese Medicine*, 31(06), pp.983–990.
- Yeboah-Fofie, M. (2017). Technology Integration and Transformation of Election in Africa: An Evolving Modality in Ghana. In : *Technology Integration and Transformation of Elections in Africa: An Evolving Modality*, p.13.
- Zanjal, S.V. and Talmale, G.R. (2016). Medicine Reminder and Monitoring System for Secure Health Using IOT. *Procedia Computer Science*, 78, pp.471–476.
- Zhang, J., Shang, H., Gao, X. and Ernst, E. (2010). Acupuncture-related adverse events: a systematic review of the Chinese literature. *Bulletin of the World Health Organization*, 88(12), pp.915–921.
- Zhang, W. and Creswell, J. (2013). The Use of “Mixing” Procedure of Mixed Methods in Health Services Research. *Medical Care*, 51(8), pp.e51–e57.