University of Groningen
Faculty of Special Sciences
Population Research Centre

Determinants of Women Decision Making in Seeking Health Treatment in Pakistan

Evidence from Pakistan Social and Living Standards Measurement Survey 2007-08

By

Syed Hassan Raza (S2105993)
s_razazaidi@yahoo.com
Thesis Master Population Studies
Supervisor : Dr.Fanny Janssen
Population Research Center
Faculty of Special Sciences
University of Groningen
The Netherlands

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LIST OF ABBREVIATIONS

ADB	**:**	**Asian Development Bank**
APA	**:**	**Australian Population Association**
CSO	**:**	**Central Statistical Office**
ESPS	**:**	**Ethiopian Society of Population Studies**
FBS	**:**	**Federal Bureau of Statistics.**
GEM	**:**	**Gender Equality Measure**
GDI	**:**	**Gender Development Index**
HDI	**:**	**Human Development Index**
MSGs	**:**	**Millennium Development Goals**
PSLMS	**:**	**Pakistan Social and Living Standards Measurement Survey**
SPSS	**:**	**Statistical Package for Social Scientists**
UN	**:**	**United Nations**
UNDP	**:**	**United Nations Development Programme**
UNICEF	**:**	**United Nations International Children Emergency Fund**
UNFPA	**:**	**United Nations Population Fund**
WB	**:**	**World Bank**
WHO	**:**	**World Health Organization**

Abstract

Women's decision making in seeking health treatment has positive impacts on both mother's and child health. But due to traditionalism Pakistani women seldom makes these decisions. Earlier researches conducted in the country on women's empowerment/autonomy mostly either relates to their Economic Empowerment or in the context of Family Planning. This study will be helpful in looking at the country's specific needs that enable them to be more autonomous in seeking health treatment.

PSLMS 2007-08 data was used to identify the determinants of women decision making in seeking health treatment (n=23776). Women's decision making by herself for seeking health treatment was considered as an indicator of her autonomy.

The results revealed that only 11.9 % of the women make the decisions by herself. Women's Decision making is positively associated with age, Education, Number of Children, Income, and Wealth Quintile. Urban women are more likely to make the decisions than the rural women. Women living in Punjab province have a stronger say in decision making compared with the other provinces. Bivariate analysis shows that married women have more say in decision making while multivariate shows otherwise. All the factors mentioned above are highly significant however the effect of number of children on women's decision making is not same for all the provinces.

Women from NWFP, Sindh and specially Baluchistan Province and Rural areas needs specific empowerment programmes. Strategies regarding improving women's education and income coupled with the creation of an environment that may promote gender equity can help to overcome the traditionalism and enable them to be more autonomous.

Key Words: Decision Making, Pakistan, Medical Treatment, Women Autonomy, Logistic Regression, Gender Inequality, Human Development Index, Millennium Development Goals.

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Chapter 1
Introduction

1.1 Background

Women are an important and indispensable part of every human society. The progress of any nation and society depends significantly upon women participation in all the fields of life. Generally, in the developing countries they are considered dependent and are surrounded by the old customs, low literacy level, unpaid/under paid labour in urban and mostly in rural areas. In South Asia women find theirselves in subordinate positions to men from many perspectives and are culturally, socially, and economically dependent on them (World Bank 2000). Women are considered economically unproductive individual and their role in rural as well as urban areas is not recognized. In order to recognize their role in the society, women need to make more concerted efforts to get their role recognized (Kharal, 2000).

Women have a unique position in all societies and no society can develop without women's participation (Zafar et al 2005). Women's participation in the decisions regarding seeking health treatment, is necessary not only for the better health of the women but of the child as well (Castle SE 1993, and Int. Conference on Population and Development 1994 cited by Acharya et. Al 2009) and is a pointer of women's empowerment too. Promoting Gender Equality and Empowerment of Women is also among the eight Millennium Development Goals, to be achieved by the countries participated in the World Summit of United Nations 2000.

The gender differences in utilization of health care services are very much evident and these differences may exist at any stage of health care delivery system.(Li J. 2004). Moore also emphasised that in many cultures women have very limited Decision Making autonomy (Moore 1983). South Asian women are faced with a great disadvantaged position with respect to their autonomy in decision making on care for their own health (Senarath and Gunawardena 2009). Like other counties of South Asia women's inclusion in decision making is also restricted in the families in Pakistan (Powell & Smith 1994). This restriction further leads to their exclusion from all other economic, political and social systems. According to UNDP's Human Development Report (HDR), Gender Equality Measure for South Asia shows the lowest value (0.235) among all the regions in the world. Furthermore, as per Gender development Index (GDI), Pakistan has been noted the poorest (0.179) among the South Asian Countries where the average index is 0.226, the Human Development Index (HDI) for Pakistan is 0.551, which ranks Pakistan as 136th out of 177 countries (UNDP report cited by Chaudhry and Nosheen (2009)). Different socio-cultural settings effects the women's individual background characteristics which have an influence on their decision making (Sathar and Kazi 2000). Pakistan is a country that comprises of different sub-cultures and there exists a cultural diversity among the four provinces of Pakistan (Shah and Amjad 2011). Haq also emphasised that the status of women in Pakistan due

to uneven socioeconomic development and the impact of tribal, feudal, and urban social customs, vary considerably across different regions, classes and the rural/urban divide (Haq 2009).

As the time passes the old concepts are rejecting. These days, women started taking part in many spheres of life. In some respects they have surpassed men. In sports, in industry & in offices they have set a new record of honesty and competence. There is hardly any field where women are not competing with men. They are now police officers , they are working as air hostesses, clerks, steno typists and personal secretaries. They have the right to vote as well. They are claiming better rights in property. Economic survey of Pakistan 2004-05 also emphasized the need for their participation in different fields of life, who constitutes 49% (29.33% being house wives) of the total population of 150 million people. (Economic Survey, 2004-05).

Feminist paradigm has also challenged the prevailing old concepts and ideas in the society and said that most explanations of the predominantly beliefs and values and norms are written by the persons who comprise only the portion of the society and not the whole. (Babbie 2010).

In order to understand the status of women in a Pakistani society, exclusively, this is vital to initially analyse their role in the domestic sphere. It is essential because due to traditionalism, the majority of women seldom interact in the public sphere. Hence, their level of "freedom" and related well-being can be better assessed from their degree of participation in the decision making regarding seeking health treatment.

In the feminist paradigm Babbie 2010 has also emphasized to focus the gender differences and to comprehend how they relates to the social organization. It not only discloses the treatment and experience of harassment on women but also argument that how women restricted in the social life.

Review of the previous literature reveals that earlier researches done on women decision making in Pakistan mostly either relates to Labour Force Participation / Economic Empowerment of the Women or in the context of Family Planning and normally these studies are conducted in some specific parts of the country. But apparently, no such study has been conducted on women decision making in seeking health treatment in Pakistan which also covers the whole country. Shaikh and Hatcher also pointed out that despite there is a growing literature on health seeking and the determinants of utilization of health services especially in the context of developing countries, but very few focused studies have been seen in Pakistan (Shaikh and Hatcher 2004). Thus there is a need to undertake a study to identify relevant determinants which are associated with women decision making in seeking health treatment in Pakistan. This study examines the factors that affect the women decision making in seeking health treatment in Pakistan by studying the data of Pakistan Social and Living Standards Measurement Survey 2007-08.

Decision Making is a process of making a selective intellectual judgment when presented with several complex alternatives consisting of several variables, and usually defining a course of action or an idea (Health Sciences Library). Since this study will provide some measure of current levels of power and autonomy of Pakistani women in decision making regarding seeking health treatment, so on one hand it is helpful in looking at the countries specific needs to introduce/improve the specific women empowerment programs to enable them to be more autonomous in the decision making regarding seeking health treatment and on the other hand it

will also explore the effect of some individual's and couple's characteristics on the women's relative power and autonomy in seeking health treatment.

1.2 Objective of the Study

The foremost objective of this study is to determine factors affecting the Women Decision Making in Seeking Health Treatment in Pakistan.

1.3 Main Research Question

To achieve the objectives of this study the following research question is developed:

What are the factors associated with the Women Decision making in seeking Health Treatment in Pakistan?

1.3.1 Sub Research Questions

To answer the main question the following sub questions are advanced

i) What are the Socio economic and demographic factors that influence women D.M in seeking Health Treatment in Pakistan?

ii) What is the effect of Place of Residence and Province of Residence on the Decision Making of Women in Seeking Health Treatment?

iii) Which of the factors are more significant in the decision making of women in seeking health treatment?

1.4 Structure of the Paper

In chapter two we will present the Theoretical Background and Literature Review that will provide us the frame work for our study and will help us to identify the factors that effect the decision making of the women and to formulate our research hypothesis. Chapter three highlights a brief description of the data that we are using and the Method of it's Analysis. In forth chapter we will show the results of the study. In chapter five we will endeavour to present summary of the results coupled with discussion that will take an extensive view of this research and will put it in a wider context and will show how the results lead to the recommendations and over all conclusion of the study.

Chapter 2
Theory and literature Review

2.1 Introduction

According to Babbie, "Theory is a systematic explanation for the observations that relates to a particular aspect of Life" (Babbie, 2010). It explains how an issue or a phenomenon can happen and provides a framework for any particular study. In this section we will discuss the literature and theories that has been used in this research. In the first instance related literature on women decision making will be viewed then afterwards, some of the theories are transformed into the study.

2.2 Literature Review

In this section we review the outcomes of the previous studies on women decision making principally studies conducted in Pakistan and South Asia region will be discussed, however some International studies conducted in other developing countries will also be examined. The literature has been taken from different research articles, books, research reports and websites.

Khan and Sajid (2011) investigated in Gujrat Pakistan, the role of women's education & marriage period on their decision making power at the house hold level. They found that education and marriage period has given a great revelation to the women about their decision making power at household level. On the basis of the analysis, they concluded that educated women and women with more than six years of their marriage period are significantly associated with their decision making. Chaudhry and Nosheen (2009) established in their research titled "The Determinants of Women Empowerment in Southern Punjab" (Pakistan) that age, number of children and marital status may be the important factors in Women decision making in Seeking Health Treatment.

Senarath and Gunawardena (2009) conducted their study in four counties of South Asia i.e, India, Srilanka, Nepal and Bangladesh, on women's autonomy in decision making for health care. They found that age increases the women decision making power in seeking Health Treatment. They also found that number of children and marital status are significantly related with the women decision making in seeking their own health treatment. In another study on Maternal and Child health-seeking behaviour by Alinafe et al. (2009), carried out in rural Bangladesh it has shown that one of the factors that affect the women's decision making in health seeking is the age. Asharya et al. 2010 also studied in Nepal the determinants of women autonomy in household decision making and found that age & number of children are positively associated with each other. Hindin (2002) conducted the research in Zimbabwe on "For Better or

for Worse? Women's Autonomy and Marital Status in Zimbabwe" and found that marital status is a key predictor in household decision making.
Hence Important demographic variables that affects the Women Decision Making in health seeking treatment may be the ***women's age, marital status and the number of children.***

Chaudhry and Nosheen (2009) established in their research titled "The Determinants of Women Empowerment in Southern Punjab" (Pakistan) that the empowerment of women is considerably influenced by the education and paid employment. Khan and Sajid (2011) conducted their study on "Effects of Women's Education and Marriage Period on their Decision Making Power at household level in Gujrat-Pakistan", the study highlighted that the women's education has given acquaintance to the women and has a great effect on women household decision making power. Mukhtar M & Mukhtar H (1991) conducted their study on "Female participation in household decision-making: an analysis of consumer durables acquisition in Pakistan" and establish that educated and working women have more decision making power than uneducated and unemployed women.
Senarath and Gunawardena (2009) also found in their research on women autonomy on health seeking conducted in South Asian Region that the women who completed secondary education or higher and the women who earned cash are much likely to have a say in decision making in seeking health care for their own. According to the Ethopian Society of Population Studies (ESPS) the education and women decision making are positively associated and it has an affirmative effect on their own health (ESPS 2009). Asharya et al. 2010 also found in their study conducted in Nepal that women ability in household decision making is enhanced for highly educated and working women. Carlssson et al. (2009) conducted their research in china and found that the women who contribute more to the household income and the women who posses more education then her husband have a stronger say in joint decisions in household decision making.

The World Bank in its report on "Women's Decision Making and Human Development in Pakistan-Applications for BISP" also assumed that like other countries, giving cash to woman not only increases the household income, but increases the women's bargaining power as well (Hou X. 2011). Thus ***Education*** and **Income / paid employment** of woman can also be the important determinants of Women decision making in seeking Health Treatment in Pakistan.

Khan and Awan (2011) in their study on Women Empowerment and Its Determinants in Pakistan found that women empowerment in the households improves by increase in socio-economic status and woman belonging to the richest class shows 1.88 times higher odds of economic empowerment as compare with the one who belongs to the poor class.

Ethiopian Society of Population Studies (ESPS) cited the studies conducted by (Kwast and Liff 1998, Mengistu 1996 and Bell et al 2003) and concluded that the economic status is an important determinant of seeking health treatment; the women of the upper wealth quintiles are more likely to take decisions regarding health care. Senarath and Gunawardena (2009) found that Higher household wealth index is an important extrapolative of more involvement in health care decisions in Bangladesh and India. Carlssson et al. 2009 in their research in china found that the women belonging to high income households have a greater influence in the joint decisions in household decision making.

Hence, important household level variable that affects the Women Decision Making in health seeking treatment may be the ***Wealth Quintile*** of the household.

Sathar and Kazi (2000) conducted their study in the context of Rural Pakistan and found that Women living in nuclear households are much more mobile, have better access to the resources, and are able to make more decisions both in the inside & outside the home. Similarly Chaudhry and Noshen (2009) conducted their study in Southern Punjab Pakistan and found that the effect of the family structure has a significant effect on the empowerment of women. Mukhtar M & Mukhtar H (1991) investigated the degree and nature of female household decision-making in Pakistan they also found that the Women living in nuclear families, in general they have more decision making power than women living in extended families.

Other studies have revealed other determinants associated with Women decision making in seeking health treatment. Zeba and Qazi (2000) in their research on the subject "Women's Autonomy in the Context of Rural Pakistan" established that Community or Region, have a dominant influence on this subject. In their study they found that Northern Punjabi women have greater decision-making authority than women in Southern Punjab. Mukhtar M & Mukhtar H (1991) conducted their study on "Female participation in household decision-making: an analysis of consumer durables acquisition in Pakistan" and found that the women living in the urban areas have more decision making power then the women living in Rural areas. Khan and Awan (2011) in their study "Contextual Assessment of Women Empowerment and Its Determinants: Evidence from Pakistan" found that Women from the province of Punjab enjoy greater autonomy and empowerment compared with the other provinces while women belonging to Balochistan Province have the lowest levels of autonomy and empowerment. Another study conducted by Sathar and Jejeebhoy (2001) conducted their study on "Autonomy of Women in India and Pakistan; a role of Region and Religion" established that the region has an overriding affect on the decision making of women.

Asharya et al. 2010 carried out their research on Women's Household decision making in Nepal using multivariate logistic regression and found that women from rural areas have less autonomy in decision making in seeking Health Treatment. The study conducted by Senarath and Gunawardena (2009) also found that in the four countries of the South Asia (India, Srilanka, Bangladesh and Nepal) urban woman is always more likely to be involved in the decision making regarding seeking health treatment.

United Nations in it's report also emphasized that Rural women has to face numerous challenges for health care, education , access to credit and gender equity (UN 2012). Ethiopian Society of Population Studies (ESPS) found in their research that there are differences in Rural and Urban areas in seeking health care. Chavoshi et al (2004) conducted their study under the auspices of Australian Population Association (A.P.A) on "Women's autonomy and reproductive behavior in Iran" and found that The results shows that there is a difference between provinces in terms of women's autonomy, fertility, and use of contraceptives. Hence keeping in view of the results of all these studies it can be acknowledged that ***Region or Place of Residence*** and ***Province of Residence*** may be the important determinants in Women decision making in seeking Health treatment.

In summarily, previous literature presents different micro and macro level factors associated with the Decision making of women. Education, income, wealth quintile, age, marriage, no. of children and family structure may be the powerful determinants of women decision making at Micro level, while at macro level Place of residence and province of residence may have an effect on the decision making of the women.

2.3 Theoretical Frame Work

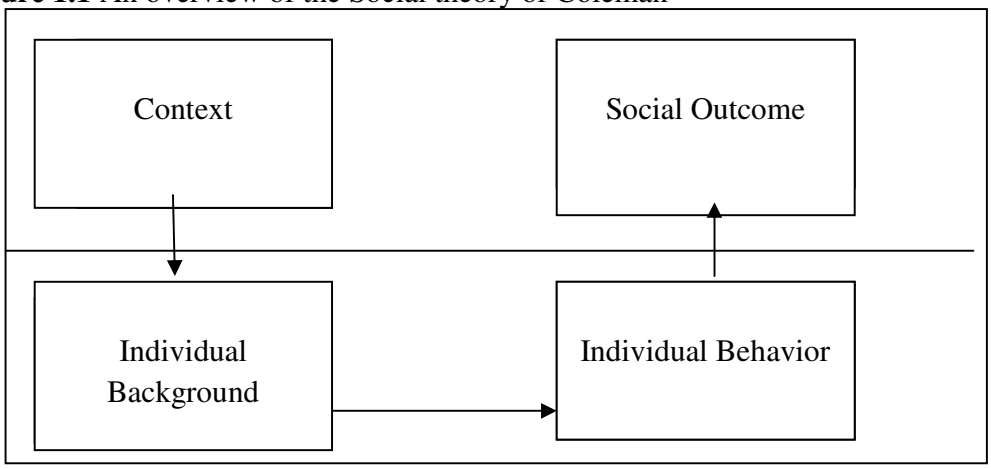
Four important theories have been used to choose different factors that affect the decision making of women; namely i) The Social theory of Coleman (Coleman 1990) ii) Resource Theory (Blood and Wolfe 1960) (iii) Resources in Cultural Context Theory (Rodman 1972) iv) Naturalistic Theory (Orasanu & Connolly 1993)

The framework attempts to integrate both the Macro and Micro level variables to define the decision making of women in seeking health treatment. The Social theory of Coleman (Coleman 1990) is taken as a general basis for this study. According to this theory, social systems can be explained by a relationship which consists of three parts. First is the influence of the society on the individual; second is the influence of the individual background on the individual behaviour; and the third part can be described as the influence of the individual behaviour on the society. Resource Theory describes that relative resources of husband and wife are the important determinants in decision-making and power. Resources in Cultural Context Theory explains that not only relative resources are important in decision making but also the cultural context in which the decision making takes place. Naturalistic Theory tries to illustrate the significance of age, it shows that in general, people can make the right decisions without performing sophisticated calculations. They only need to use their experience to recognize the decision problem as similar to other previous ones and makes the decisions.

2.3.1 Social Theory of Coleman

Coleman 1990 cited by De Bruijn 1999 states that the relationship between variables at the macro level can be explained by the relationship between variables at the micro level, or, to put it differently: Each global phenomenon is the result of individual behaviour. According to Coleman 1990, social systems can be explained by a relationship which consists of three parts. First is the influence of the society on the individual background; second is the influence of the individual background on the individual behaviour; and the third part can be described as the influence of the individual behaviour on the society. (De Bruijn, 1999). The relations among the above mentioned elements can be illustrated in Figure 1.1. This study is focusing on the women's autonomy in seeking health treatment by finding out the factors that might influence the women in decision making in seeking health treatment.

Figure 1.1 An overview of the Social theory of Coleman



Source: Coleman 1990 cited by De Bruijn 1999

2.2.2 Resource Theory

Family / spousal power was initially defined in the Resource Theory by Blood and Wolfe's. Afterwards, a large proportion of the research on marital power from the past several decades has been based on or informed by this theoretical direction (Hopkins and Webster). Blood and Wolfe's resource theory determine to observe spousal power in the family. It states that " The balance of power will be on the side of that partner who contributes the greatest resources to the marriage " (Blood & Wolfe 1960 cited by Hopkins and Webster). The explanation of this theory is that comparative resources of husband and wife are key determinants in decision making and power. The spouse with the greater resources is more probable to have more decision making power. Since, generally, husband posses more power than wife because he possess more resources in the marriage. This theory will be used to select the variables income education and wealth quintile at micro level.

2.2.3 Naturalistic Theory

The Naturalistic Theory (Orasanu & Connolly 1993 cited by Lzarraga M.L.S.D.A et al. 2007) of the decision process underlines the role of experience and personal competence. The Naturalistic Approach to decisions tries to illustrate that, in general, people can make the right decisions without performing sophisticated calculations. They only need to use their experience to recognize the decision problem as similar to other previous ones and to evaluate all the factors that affect each of its phases and makes the decisions. This theory will also be used to select the micro level Age as an indicator of women decision making.

2.2.4 Resources in Cultural Context Theory

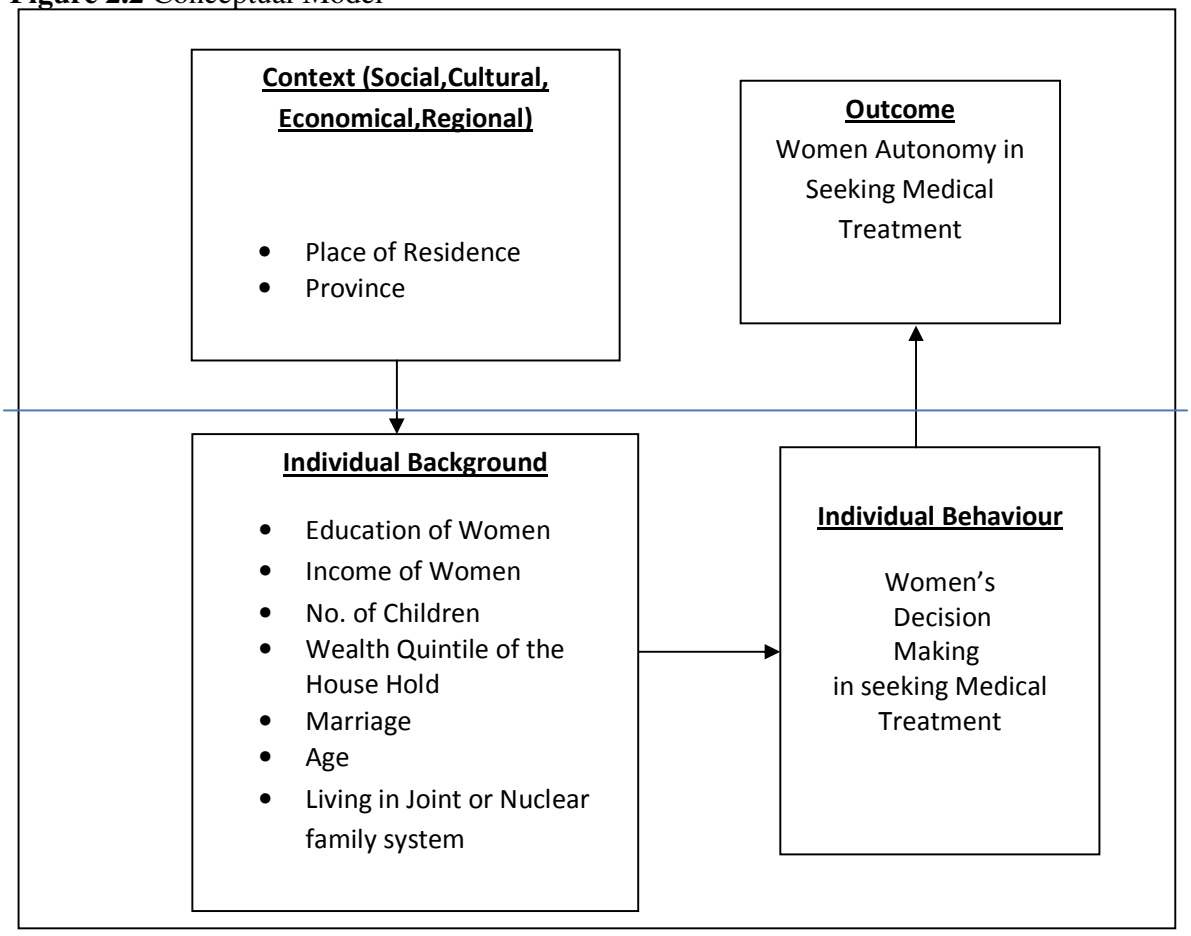
Resources in Cultural Context Theory takes into account not only relative resources, but also the cultural context in which the decision making takes place. In his model, Rodman 1972 (cited by Hopkins C.D and webstar C. 1995) asserts that marital power is not only affected by the resources of the parties, but also by the cultural norms those describe the marital power.

Rodman also perceived that this relationship holds not only between countries, but also within the same country, between traditional societies and modem societies. This theory will be used as a background to select the Macro level variables Place of residence and Province of residence which constitutes the context of the study.

2.3 Conceptual Model

Based on the theoretical Frame work and Literature review the conceptual Model of the study is presented in Figure 2.2. Social theory of Coleman (1990) has been taken as the general basis for the conceptual Model which links micro level variables with macro level variables and vice versa. According to this theory individual behaviour (micro) is influenced by individual background (micro) which is based on the context (macro) in which the individual resides. The individual behaviour leads to a social outcome (macro).

Figure 2.2 Conceptual Model



** Where the autonomy has been defined as "The capacity to manipulate one's personal environment through control over resources and information in order to make decisions about one's own concerns or about close family members" (Dyson and Moore 1983). women's autonomy can be measured by putting forward the questions on decision making within the household (Castro 2012)*

At the micro level the Resource theory and Naturalistic Theory is incorporated to identify the variables that constitutes the Individual background. This theory distinguishes the four determinants of Individual background i.e, Age, Income, Wealth Quintile and age. These determinants relating to the background characteristics of the individual influences the Individual Behaviour i.e, women decision making in seeking health treatment. The behavioral outcome at micro level lead to social outcome at Macro level i.e, Women Autonomy in decision making regarding seeking health treatment.

The individual background characteristics are also influenced by the context in which the individual lives. At Macro level Resources in Cultural Context Theory is used to identify the context in which the individual resides. This theory distinguishes two factors i.e, Place of residence and province of residence that constitutes the context.

2.4 Definition of Concepts

a. **Educational Level:** The highest level completed with the most advanced level attended in the educational system of the country where the education was received (Siegel, et al., 2004). In Pakistan, this is usually classified as primary, Middle, secondary and higher level.

b. **Wealth Quintile:** This is constructed by combining information on household's Income and expenditure on a scale of 1 to 5, where 1 represents the lowest or poorest Quintile and 5 the highest or richest Quintile (PSLM 2007-08).

c. **Marital Status:** This refers to the state of being married, never married/single, divorced , widowed or Nikah solemnized but ruksati has not taken place (meaning that legally the marriage has taken place but the woman is still staying in her parent's home) (PSLM 2007-08)

d. **Residence:** The place where a person lives or dwells (Siegel, et al., 2004).

e. **Income:** The amount of money or its equivalent received during a period of time in exchange for labor or services, from the sale of goods or property, or as profit from financial investments (http://www.thefreedictionary.com).

f. **Household income**: is the sum of money income and income "in kind" and consists of receipts which, as a rule, are of a recurring nature and acquire to the household or to individual members of the household regularly at annual or at more frequent intervals (Manual of Instructions PSLM 2005)

g. **Treatment:** This refers to the management and care of a patient or the combating of disease or disorder (http://medical-dictionary.thefreedictionary.com).

h. **Age:** This is the length of time that a person has lived or a thing has existed (Oxford Dictionary). A distinction is made between completed age and exact age, the

completed age usually defines in terms of the last birthday and exact age is usually defined from the date of assessment.

i. **Culture:** Giddens (2006) has defined culture as the values and ceremonies and ways of life characterized by a group. This is the state or circumstances of the population/people in a given area. In this study proxies of culture will be used to determine the cultural context of the people such as place of residence being rural or urban or the province of residence being residing in Punjab, Sindh, NWFP or Baluchistan province..

2.5 Research Hypothesis

From theory and literature review, the hypotheses identified are given below and the study will test these giving inferences in each case.

Research Hypothesis

a) Age, Education of women, Wealth Quintile, Number of children, Income of women, Marital Status all have a positive significant effect on the likelihood of decision making by the women herself.

b) The effect of the place of residence (rural / urban) and province of residence on the probability of making the decisions by the women herself is significant.

c) Place of Residence, Province of Education, Age, Number of Children, Marital Status , Income, Education and Wealth Quintile all are highly significant in women decision making regarding seeking health treatment.

CHAPTER THREE
Data Collection and Method of Analysis

3.1 Introduction

In this chapter we will provide a snap shot of the Data Collection Methodology and Techniques used in it's analysis by outlining the Study design, Description of data used in this study, Sample Design of the Data/Survey, Data Processing and Analysis methodology accompanied with Operationalization of the Variables, and the Ethical Issues.

3.2 Study Design

This research would use quantitative and descriptive study design. The foremost objective of this study is to determine the factors that affect the Women Decision Making in Seeking Health Treatment in Pakistan. To accomplish the objective of the study a quantitative analysis on the data of Pakistan Social and Living Standards Measurement Survey 2007-08 (which was originally collected by the Federal Bureau of Statistics Pakistan) is conducted. This is a cross sectional study as the data analyzed in the study is collected at one point of time. To analyze the data, descriptive statistics and logistic Regression methods will be carried out.

3.3 Pakistan Social and Living Standards Measurement Survey

The decision to use Pakistan Social and Living Standards Measurement Survey 2007-08 (PSLM 2007-08) data is based on it's greater coverage, quality of data, availability of information regarding women decision making in seeking health treatment and most important of all these it's accessibility. This makes PSLM data enough to provide the answers to our research questions. The greater coverage in the survey enables us not only to look at country level but also gives us the insight of the provincial level differences.

3.3.1 Description of Data

PSLM is one of the largest surveys conducted in the country encompass information for 53054 women. This survey provides the estimates at National and Provincial level. The Survey was conducted by Federal Bureau of Statistics Pakistan (The Central Statistical Office of the country). This survey was the fourth round of the series of surveys planned to be conducted up to 2009. The field work was carried out between the periods July 2007 to June 2008. The earlier rounds of PSLM surveys were for the years 2004-05, 2005-06 and 2006-07.

The first and foremost objective of the survey was to provide Social & Economic indicators on alternate year basis at National, provincial and district levels by collecting the data on Health,

Education, Rural Water Supply and Sanitation, Women Decision Making and Income/ Expenditure e.t.c. The data generated through surveys is used to help the government in formulating the Poverty Reduction Strategies/Development Plans and provides the rapid assessment of the programs in the overall context of Millennium Development Goals. Promoting gender equality and empowering women is also among one of the eight Millennium Development Goals to be achieved by the countries who participated in the United Nation's World summit 2000.

Two types of questionnaires were used to collect the data. First one was for the male and the second one was for the female. The questions regarding women decision making was only asked through the female questionnaire and only from the women aged 15-49 years. This study primarily uses the "women in decision making data" file from PSLM 2007-08 because this study focuses on the determinants of women decision making in seeking health treatment. The women decision making file has one record for every woman aged 15-49. The other files including roster file, income of the women file, education file, pregnancy history file and wealth quintile file (containing the basic information about the background characteristics of the women like age, place of residence, province of residence, marital status , income of the women, education of the women , number of children the women posses and wealth quintile) have been merged with this file. In the women decision making file 26085 women aged 15-49 years were included. Women responded the question on decision making regarding seeking health treatment are 23776 women aged 15- 49 years.

3.3.2 Population and sampling Frame of the Data/Survey

The Population of this survey consists of all the four provinces of the country and Federal capital Territory, however military restricted areas are excluded, which constitutes only a small part of the population. PSLM'S(2007-08) sample design permits the computation of indicators for both rural and urban areas of the four provinces of the country and at provincial level as well. The sampling frame is based on the 1998 population and housing census of the Islamic Republic of Pakistan which consist of all urban and rural areas of the four provinces of the country.

3.3.3 Sample Design

Two stage stratified random Sampling design has been used for collecting the data. In the first stage the enumeration blocks in the urban areas (Each block consists of 200-250 households) and villages in rural areas have been selected using Probability Proportional to Size sampling technique. In the second stage Secondary Sampling Units i.e, households have been selected. In urban areas 12 households (in urban areas) while 16 households (in rural areas) have been selected from each urban block and rural village (respectively) using Systematic Random Sampling technique.

3.3.4 Data Quality and Reliability Measures

As elaborated earlier that one of the reasons for selecting this data for our study is it's high quality and reliability**.** Quality of data is an important concern for the validity of the results. PSLM data can be considered as of highest standards quality. This is one of the largest surveys conducted in the country and takes into account the population of all the four provinces and the

Federal Capital Territory. The reliability of the data can be determined by the size of the sample that has been covered in the survey coupled with measures taken during the survey for the assurance of it's quality. Throughout the Survey field work was checked by the supervisors in the field. Teams from the headquarter were also deputed for the validation of the data collected by the field staff. Regional/ Field offices ensured the data quality through preliminary editing at their level. However, entire data entry was carried at the Federal Bureau of Statistics headquarter Islamabad, and the data entry programme used also had a number of in built consistency checks.

3.4 Target Group of the study

As elaborated earlier that the survey covered a total of 53054 women. However the question regarding women decision making was only asked from the women aged 15-49 years. The sample size for this study is 23776 women aged 15-49

3.5 Identification of Variables:

In order to test our hypotheses and to find the answers of the research questions the variables are classified as follows:

- **Dependent / Outcome Variable**
  Women Decision Making in Seeking Health Treatment.

- **Independent Variables**
  Three categories of variables will be used as predictors of Women Decision Making in Seeking Health Treatment in Pakistan which are listed below:

Individual Variables	**Household Variable**	**Community Variables**
Age of the Women	Wealth Quintile	Place of Residence
Level of Education of the women		Province of Residence
Income of women		
Marital Status		
No. of Children		

3.6 Operationalization

The above identified variables are operationalized as follows

3.6.1 Dependent / Outcome Variable

Women Decision making in seeking health treatment has been determined from the question that who in your household usually makes the decisions regarding obtaining the Medical Treatment. Questions asked in the PSLM 2007-08 were

Woman herself = 1
Head/Father of the household decides alone = 2

Head/Father in consultation with his/her spouse = 3
Head/Father in consultation with the woman concerned = 4
Head/Father and spouse of the head in consultation with the woman concerned = 5
Head/Father and other male members decide = 6
Other combination of persons decide = 7

The outcome variable is operationalized as follows:

The woman makes the decisions regarding seeking health treatment by herself = 1
= 0 otherwise

3.6.2 Independent variables: The operational definitions and classifications of independent variables are given in the table 3.1

Table 3.1 Operational Definition and classification of independent variables

Variables	Operational Measurement
1 Individual Variables	
1.1 Highest Level of Education	The highest level completed with the most advanced level attended in the educational system of the country where the education was received, It is coded as 0-No education 1-Primary = Class 1-5 2-Middle = Class 6-8 3-Secondary = Class 9-10 4-Higher = Class 11 or More
1.2 Age of woman	This is the length of time that a person has lived. It is coded as 1. 15-19 Years 2. 20-24 Years 3. 25-29 Years 4. 30-34 Years 5. 35-39 Years 6. 40-44 Years 7. 45-49 Years
1.3 Marital Status	This refers to the state of being married, never married/single, divorced or widowed. It is coded as 0-Currently Not Married (Never Married/Widow/Divorced/Nikkah Solemnised but rukhsati not taken place* 1-Currently Married
1.4 No of Children	Number of children still alive. it is coded as 0-No Child 1-one child 2-Two Children 3-three Children 4-Four Children 5- Five or more Children

1.5 Income of Women	The money or other gain received, in a given period, by an individual, corporation, etc. for labour or services or from property, investments, operations, etc. 0-No Income 1-1-3500 2-3501-9000 3-9001-25000 4-25001+
2. Household Variables	
2.1 Consumption/wealth Quintiles	These are constructed by combining information on household's Income and expenditure on a scale of 1 to 5, where 1 represents the lowest or poorest Quintile and 5 the highest or richest Quintile. These are coded as 1-Lowest* 2-2nd Quintile 3-Third Quintile/ Middle Quintile 4-Forth Quintile 5-Highest
3. Community Variables	
3.1 Place of residence	The place where a person lives or dwells. It is classified as Rural or Urban and coded as 1- Urban 2- Rural
3.2 Province of Residence	The Province of residence is the province where the person lives. These are recoded as 1-Punjab 2-Sindh 3-NWFP 4-Baluchistan

* Nikah solemnized but Ruksati not taken place is included in the category Unmarried.

3.7 Data Processing

Data Processing may be defined as, "Conversion of the data set into a form that can be processed by the computer" (http://www.answers.com/topic/data-processing). As the data of the survey is already in the statistical software SPSS. So the data processing and analysis will also be done through SPSS. The following steps will be involved

- Selecting of the variables in the files required to answer our research questions (details mentioned in section 3.3.1)
- Merging of all these relevant files into one.
- Transformation of the variables into new variables according to the new coding scheme defined during operationalization.

3.8 Method of Analysis

Since the data available is at the individual level so the units of analysis will also be at individual level i.e, women aged 15-49 years. Initially bivariate analysis will be done to gain insight of each of the variables described above. This will involve computation of basic descriptive statistics i.e., finding out minimum and maximum values, the frequency distribution of each of the variables.
In the second step, Bivariate analysis will be done to get insight of the relationship between the dependent variable and independent variable, to achieve this cross tabulations coupled with Chi-Square statistical test will be run. Cross Tabulations will permit us to look at how changes in the frequency of occurrence of the one (dependent variable) is associated with the changes in the frequency of occurrence of other variable (independent Variable). It is worth mention over here that the Cross Tabulation is most appropriate to use when the two variables are nominal (i.e., categorical) and there are not to many empty cells. Chi Square test of association will tell us if there is any relationship exists between the two categorical variables. Bivariate Logistic Regression by taking one independent variable at one time will also be carried out to see the individual effect of each variable on the dependent variable (women decision making in seeking health treatment by herself)

In the next step we will examine whether the women have a say in decision making regarding seeking health treatment in the household or not by taking all the independent variables altogether. We will make use of binary logistic regression, which is the most frequently used method to describe the relationship between the dependent and the independent variables when the dependent variable has two outcomes. Nurusis also emphasized that it is the most suitable method in models where the dependent variable is dichotomous (Nurusis, 1997)

The model can be described in the form of logit function as under.

$$\text{Logit}(y) = \beta_o+\beta_1X_1+\beta_2X_2\text{---------}+\beta_n X_n$$

.
Estimated probability of that the women have a say in decision making regarding seeking health treatment is given by

$$P(y=1) = \frac{1}{1+e^{-(\beta o+\beta 1X1+\beta 2X2\text{---------}+\beta n\, Xn)}}$$

Where;
Y is dichotomous dependent variable called logit defined as

Y = 1 if women have a say in decision making regarding seeking health treatment in the household
= 0 otherwise

βo is the intercept term and is the value of y when all the independent variables are equal to zero.
β_i (i=1,2,……n) are the coefficients of the covariates to measure the effect of X_i on the log odds that a women has a say in the decision making in seeking health treatment in the household (Y=1) after controlling the other independent variables. Positive value of regression coefficient indicates that the independent variable increases the log odds of the occurrence of the outcome, while a negative value indicates that variable decrease the log odds of the occurrence of the outcome. Moreover, a large value of the regression coefficient indicates that the explanatory variable strongly

influences the outcome; while a value approaches to zero indicates that the explanatory variable has a small effect on the outcome.

The value of **e** is 2.7182

X_1,X_2--------- X_n are the Independent variables

3.9 Ethical Considerations

This study is based on the analysis of secondary data. The data has originally been collected and compiled by Federal Bureau of statistics, Islamabad. The permission for the use of data has already been obtained by the competent authority in Federal Bureau of Statistics. Further, the data sets will be managed with care and safety and will be used only for the purpose as requested.

CHAPTER FOUR
Results

4.1 Introduction

The main objective of this chapter is to provide and present the findings of the research based on Pakistan Social and Living Standards Measurement Survey 2007-08. This chapter consists of three sections, section 4.2 provides the descriptive statistics of all the variables viz, Outcome Variable (Women Decision Making in seeking health treatment) and the explanatory variables. In the second section 4.3 bivariate analysis will be provided which includes cross tabulation , chi-squares tests and logistic regression by taking into account the dependent variable and one independent variable at one time and finally in section 4.4 the results of Multivariate Logistic Regression Model will be discussed and interpreted.

4.2 Descriptive Analysis

In this section a brief description of all the variables that have been used in the conceptual model will be presented.

4.2.1 Outcome Variable (Current Status of Women Decision Making in Seeking Health Treatment)

The table 4.1 below presents the description of current status of women decision making in seeking health treatment in Pakistan. The respondents of the analysis are women aged 15-49 Years. The total sample size is 23776.

Table 4.1. Frequency and Percentage Distribution of the various categories of decision making

Categories of Research	Frequency	Percent
1=Women Herself	2825	11.9
2=head/father decides alone	7512	31.6
3= Head/father of the household decides in consultation with his/her spouse	7779	32.7
4= Head/father of the household decides in consultation with the women concerned	2506	10.5
5= Head/father and spouse of the household decides in consultation with the women concerned	1448	6.1
6=head/father and other male members decides.	1377	5.8
7=other combinations of the persons decides	329	1.4
Total	23766	100

Table 4.1 shows that of the total sample only 11.9 % of the women make the decisions regarding seeking health treatment in the household by theirselves. While in 10.5 % and 6.1% of the cases the head/father of the household makes the decisions in combination the woman concerned and head in combination with the spouse and women concerned respectively. In 31.6 % of the cases the Head/Father of the household decides alone. The maximum percentage of cases falls in the category where the head makes the decisions in consultation with his/her spouse 32.7 % . Cases where the Head/Father and other male members decides is 5.8%. The lowest number of cases falls in the category where none of the above mentioned combination of the persons decides.

4.2.2 Characteristics of the Respondents

It is important to first have a look at the distribution of the total sample size among the different characteristics of the respondents and the missing values.

Table 4.2 Distribution of Socio-Economic/Demographic Characteristics of Women Age 15-49

Variables	Sample Size = 23776	%
Province		
Punjab	9634	40.5
Sindh	5609	23.6
NWFP	4988	21
Balochistan	3544	14.9
Total	23775	100
Missing	1	0
Grand Total	23776	100
Place of Residence		
urban	9887	41.6
rural	13888	58.4
Total	23775	100
Missing	1	0
Grand Total	23776	100
Age		
15-19	5738	24.1
20-24	4470	18.8
25-29	3802	16
30-34	2913	12.3
35-39	2776	11.7
40-44	3138	13.2
45-49	939	3.9
Total	23776	100
Missing	0	0
Grand Total	23776	100
Income		
No Income	20953	88.1
1 to 3500	703	3
3501 to 9000	691	2.9

Variables	Sample Size = 23776	%
Number of Children		
0	10478	44.1
1	2018	8.5
2	2192	9.2
3	2293	9.6
4	2215	9.3
5+	4580	19.3
Total	23776	100
Missing	0	0
Grand Total	23776	100
Quintile		
Lowest	4240	17.8
Second	4679	19.7
Middle	4801	20.2
Forth	5059	21.3
Highest	4997	21
Total	23776	100
Missing	0	0
Grand Total	23776	23776
Education		
No Education	15460	65
Primary	2897	12.2
Middle	1437	6
Secondary	2120	8.9
Higher +	1836	7.7
Other	26	0.1
Total	23776	100
Missing	0	0
Grand Total	23776	100

9001 to 25000	732	3.1
25001 to Highest	696	2.9
Total	23775	100
Missing	1	0
Grand Total	23776	100

Marital Status		
Unmarried/widow/widower/divorced/Nikah Solmnised but Rukshati not Taken Place	8692	36.6
Currently Married	15084	63.4
Total	23776	100
Missing	0	0
Grand Total	23776	100

The total sample size for this research is 23776 women of age 15-49 selected from Pakistan Social and living Standards Measurement Survey 2007-08.

Among the whole sample a large proportion of women i.e 40.5% were living in the Punjab province followed by 23.6% and 21% of the total sample size which belongs to the provinces Sindh and NWFP and only 14.9 % of the total sample comprising of those women who were living in the province of Baluchistan.

In addition, data also shows a rural urban classification, which is distributed unequally by the place of residence of the respondents. The majority of the respondents (58.4 %) belongs to Rural areas as opposed to 41.6 % of Urban Areas.

The age distribution of the respondents shows that the majority of the respondents (24.1 %) belongs to the age group 15-19 years, followed by the proportion of women which belongs to the age groups 20-24 and 25-29 years (18.8 %and 16 %) respectively. 13.2% , 12.3 % and 11.7% of the women belongs to the age groups 40-44, 30-34 and 35-39 respectively and only 3.9% of the respondents belongs to the highest age group 45-49.

A look at the distribution of respondents by Marital Status reveals that majority of the respondents (63.4%) falls in the category currently married, whereas 36.6% of the respondents were “Unmarried/widow/widower/divorced/Nikah solemnized but Rukshati not Taken Place”.

The distribution of the number of children shows that most of the women are those who are either unmarried or currently do not possess the children (44.1%). 19.3% of the women are those who have 5 or more children and about 9.6% are those women who currently have 3 children. The proportion of those women who posses 4 and 2 children are 9.3 % and 9.2% respectively. The % of women who posses only one child is the lowest i.e, 8.5%.

The distribution of respondents by income Quintiles reveals that there was not too much difference in the distribution of women aged 15-49 by income quintile. The percentage of women in the Lowest quintile is 17.8 % while the highest percentage of women falls in the forth quintile (21.3%)

The educational level of respondents indicates that 65.0% of the women are those who has either no education or less than class one education. Among the women who have at least completed class one, 12.2 % are those woman who have attained the Primary education followed by the women who have attained the secondary and higher education 8.9%and 7.7% respectively. The

percentage of women who attained the Middle level education are only 6% of the total sample size and the lowest percentage of women i.e, .1 percent has seen for those women who got other education (education does not fall in the categories mentioned earlier).

The income variable has been converted into five categories viz; Group 1 = No Income, Group 2 = 1 to 3500, Group 3= 3501 to 9000, Group 4=9001 to 25000, Group 5=25001 to Highest. The Majority of the women have no income (88.1%). and the percentage of women in all the remaining income groups is almost the same, i.e, more or less 3 %.

Since in this study Women's decision making by herself regarding seeking health treatment was considered as an indicator of her autonomy. So before combining the categories in which the women do not herself makes the decisions, have a look at how the different categories of Decision Making are distributed among various socio economic and demographic characteristics.

4.3 Relationship Between Socio-Economic /Demographic Characteristics and Decision Making Categoris in Seeking Health Treatment

Table 4.3 below is the result of cross tabulations conducted to examine the effect of eight independent variables on Women Decision Making in Seeking Health Treatment.

Table 4.3 Results of cross-tabulation conducted to look at the influence of Independent Variables on various Decision Making categories

Variable	Woman Herself	Head /Father Alone	Head /Father in consultat-ion with his / her spouse	Head /Father in consultat-ion with the women concerned	Head/father and spouse of the household decides in consultation with the women concerned	Head/father and other male members decides.	other combinations of the persons decides
Province							
Punjab	21.1%	18.1%	31.3%	15.5%	7.4%	3.9%	2.8%
Sind	6.7%	27.5%	45.5%	9.9%	5.9%	3.6%	1.0%
NWFP	7.5%	45.6%	22.8%	7.3%	6.1%	10.6%	.0%
Baluchistan	1.2%	55.1%	30.2%	2.7%	2.9%	7.6%	.3%
P value	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Correlation Coeff(r)	-.22	.03	-.04	-.15	-.06	.09	-.09
Place of Residence							
Urban	15.0%	26.6%	32.2%	12.3%	6.6%	5.8%	1.5%
Rural	9.7%	35.1%	33.1%	9.3%	5.7%	5.8%	1.3%
P value	0.00	0.00	.12	0.00	0.00	.94%	.17%
Correlation Coeff(r)	-.08	.09	.01	-.05	-.02	0.00	-.01

Age							
15-19	5.4%	35.8%	23.8%	17.3%	9.3%	6.4%	2.0%
20-24	9.10%	31.3%	28.9%	13.4%	7.7%	7.5%	2.0%
25-29	11.50%	31.3%	36.0%	8.9%	5.0%	6.0%	1.3%
30-34	14.20%	31.9%	38.2%	6.0%	4.7%	4.1%	.9%
35-39	16.60%	29.1%	39.8%	6.1%	3.5%	4.4%	.6%
40-44	19.60%	28.6%	37.2%	5.5%	3.3%	4.9%	.9%
45-49	19.20%	25.3%	39.2%	6.0%	4.0%	5.4%	.9%
P value	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Correlation Coeff(r)	.15	-.05	.12	-.14	-.09	-.04	-.04
Marital Status							
Unmarried/widow/widower/divorced/Nikah Solmnised but rukshati not taken place	9.6%	32.0%	20.6%	19.2%	9.3%	7.1%	2.3%
Currently Married	13.2%	31.4%	39.7%	5.5%	4.3%	5.1%	.9%
P value	0.00	0.33	0.00	0.00	0.00	0.00	0.00
Correlation Coeff(r)	.05	-.01	.20	-.22	-.10	-.04	-.06
Number of children							
0	8.3%	33.1%	24.2%	16.8%	8.8%	6.8%	2.1%
1	11.9%	31.0%	37.2%	7.3%	5.2%	6.0%	1.3%
2	14.1%	30.4%	38.9%	6.0%	4.5%	5.2%	1.0%
3	15.6%	29.3%	41.0%	5.0%	3.2%	5.1%	.9%
4	17.2%	28.4%	41.7%	5.4%	3.0%	3.7%	.8%
5+	14.6%	31.7%	38.9%	5.2%	4.0%	5.1%	.5%
P value	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Correlation Coeff(r)	.09	0.00	.14	-.16	-.09	.04	-.06
Quintile							
Lowest	6.7%	41.1%	32.9%	7.5%	6.2%	4.4%	1.3%
Second	8.1%	35.5%	32.9%	9.6%	6.6%	6.6%	.7%
Middle	10.6%	33.7%	32.1%	9.9%	5.3%	6.8%	1.6%
Forth	13.7%	29.6%	32.2%	11.7%	6.5%	4.7%	1.6%
Highest	19.3%	20.0%	33.5%	13.4%	5.8%	6.3%	1.6%
P value	0.00	0.00	0.55	0.00	0.06	0.00	0.00
Correlation Coeff(r)	.14	0.00	0.00	.06	-.01	0.01	.02

Education	9.1%	36.0%	32.6%	9.2%	5.9%	6.1%	1.1%
No Education	13.5%	27.1%	34.3%	11.4%	6.1%	5.5%	2.1%
Primary	15.2%	25.5%	29.7%	14.5%	7.4%	6.1%	1.5%
Middle	17.3%	22.0%	32.4%	14.4%	6.0%	5.6%	2.3%
Secondary	24.2%	17.3%	33.9%	12.5%	6.5%	3.7%	1.8%
Higher +	19.2%	26.9%	26.9%	7.7%	3.8%	15.4%	.0%
Other	0.00	0.00	0.05	0.00	.33	0.00	0.00
P value	.14	0.00	0.00	.06	.01	-.02	.03
Correlation Coeff(r)							
Income							
No Income	10.9%	32.9%	32.3%	10.6%	5.9%	5.9%	1.4%
1 to 3500	8.5%	25.3%	39.0%	9.4%	11.9%	4.6%	1.3%
3501 to 9000	14.3%	24.9%	37.6%	9.6%	5.9%	6.8%	.9%
9001 to 25000	21.6%	21.7%	33.6%	11.7%	5.6%	4.2%	1.5%
25001 to Highest	31.0%	16.5%	31.8%	8.9%	5.2%	4.0%	2.6%
P value	0.00	0.00	0.00	.292	0.00	0.03%	0.06
Correlation Coeff(r)	.11	0.00	.01	0.00	0.00	-.02	.01
Total	11.9	31.6	32.7	10.5	6.1	5.8	1.4

Data table 4.3 shows that the majority of the decision making regarding seeking health treatment in the households in Pakistan either made by the head/father in consultation with his/her spouse (32.7 %) or Head/Father alone (31.6 %).The cases in which either head/father in consultation with other male members decides or the "other combination of persons" decides is very low i.e, 5.8 % and 1.4 % only . The percentage of cases in which the woman decides herself is only 11.9 %. The cases in which Head /father makes the decision in consultation with the women concerned is only 5.8 % and in the cases in which Head/father and spouse of the household decides in consultation with the women concerned is only 6.1%.

Province

The largest percentage of cases in which the women herself makes the decisions has seen in Punjab Province i.e. 21.1 % followed by the province NWFP and Sindh where 7.5% and 6.7% of the women makes the decisions by theirselves. In Baluchistan Province only 1.2% of the women decide by herself.

If we look at the percentage of the cases where the Head/Father of the household makes the decisions alone we can see that the same is highest in Baluchistan Province 55.1 % while the same proportion for the NWFP and Sindh province is 45.6% and 27.5 % respectively. The lowest percentage of such cases are in Punjab province where only 18.1 % of the cases are those where the head / father of the household decides alone.

The cases in which the head decides in consultation with the spouse it is highest in the Sindh Province (45.5%), followed by the provinces Punjab and Baluchistan Province where in 31.3 %

and 30.2 % of the cases the head in consultation the spouse decides. This percentage is lowest in case of NWF Province (22.8 %).

It may roughly be concluded that the proportion of Women Decision Making is variant in all the provinces and the involvement of women in the decision making in the Punjab province is the highest and the same is the lowest in the Baluchistan.

Place of Residence

Table 4.3 also shows the influence of Place of Residence on Decision Making in seeking health treatment. This table reveals that the proportion of cases where woman decides by herselves is higher in the urban areas (15%) as against the rural areas where this percentage is only 9.7%.

In the cases where the head decides in consultation with the woman concerned this percentage is a bit higher 33.1 % in Rural areas where as the same percentage in the Urban areas is 32.2%. Similarly, the proportion of cases where the head decides alone is much higher in the Rural areas compared with the Urban areas and which is also according to what we can expect. The same percentage in the urban areas is only (26.6 %) as against the rural areas where this percentage is 35.1%.

This data suggests that in urban areas women have a greater say in decision making regarding seeking health treatment in comparison with rural areas

Age.

In case where the woman decides by herself, the lowest percentage i.e, 5.4 % has seen in the first age group i.e, 15-19 years and increases subsequently up to the age group 40-44 years . The % of woman decision making in the subsequent age groups is 9.10%, 11.50%, 14.20%, 16.60% and 19.60% (for the age groups 20-24, 25-29, 30-34, 35-39 and 40-44 years respectively). This % is little bit lower in the last age group 45-49 years compared with the previous age group (19.2 %).

In case where the head/father decides alone is not very much variant among different age groups except the first age group where this percent is the highest (35.8 %) and the last one where this percentage is lowest (25.3 %) among all the age groups.

The case where the head/father decides in consultation with the spouse more or less presents the same picture that we have seen in case where the woman decides by herself. The same is lowest for the first age group 15-19 years (23.8 %) and increasing subsequently until age group 35-39 years where this percentage is (39.8 %). The percentage for the age groups 40-44 and 45-49 are are a bit lower than the highest (37.2% and 39.2% respectively).

Looking at the proportion of cases where the woman decides herself It may roughly be concluded that there exists a positive association between the Age and Women decision making, i.e, The women decision making increases with the increase in age. The Co-efficient of correlation (+.15) also suggests the same result.

Marital Status.

From the table 4.3 above, we can see that the percentage of women decision making by herself is higher in case where the woman is currently married (13.2 %) compared with the woman who are currently unmarried (9.6 %).

However in cases where the head/father decides alone is different than what we have seen earlier and we can expect the same as well. The percentage of cases where the marital status of woman is currently married and the decisions regarding seeking health treatment are made by the head alone is (31.4 %) compared with the cases where the woman concerned is currently unmarried and the decisions regarding seeking health treatment are made by the head alone (32 %).

The highest difference in the decision making can be seen in the case where the head decides in consultation with the spouse. The percentage of cases where the marital status of woman is currently married and the decisions regarding seeking health treatment made by the head in consultation with the spouse is (39.7 %) compared with the cases where the woman concerned is currently unmarried and the decisions regarding seeking health treatment made by the head in consultation with the spouse (20.6 %).

Looking at the data of women decision making by herself it may roughly be declared that the currently married women has more likelihood of decision making regarding seeking health treatment.

Number of children

A look at the table 4.3 under the column where the women herself makes the decisions reveals that the smallest proportion (8.3 %) of the cases of women decision making (by herself) occurs where the women has no child and increases gradually with the increase in the number of children. This proportion for the cases where the woman posses one child is 11.9 % followed by 14.1 %, 15.6 % and 17.2 % where the woman posses two, three and four children respectively). Interestingly a decrease in the women decision making is seen in the group where the women has 5 or more children (14.6%) compared with the previous group.

The cases where the Head/father in consultation with the spouse makes the decisions also presents almost the same pattern as we have seen in the case where the woman makes the decisions by herself. The cases where the Head/father makes the decisions alone presents more or less the same picture for all the cases. The correlation co-efficient (0.00) also suggests the same.

It is pertinent over here to look at the situation where the head makes the decisions in combination with the woman concerned where this picture it quite opposite as compare to which that we have seen earlier in case when the women makes the decision herself. The percentage of woman decision making is highest in the case where the woman do not posses any living child (16.8 %) and is lowest where the woman has three children (5 %), The same % for the cases where woman posses 5 or more children is also very low (5.2%). The correlation co-efficient (-0.16) suggests that there is a negative relationship between number of children and the decision making by the head in consultation with the spouse.

Data in table 4.3 suggests a positive association between Number of children and women decision making by herself as we can see that the higher the number of children, the higher the proportion of cases where the woman decides by herself regarding seeking health treatment. Thus we can roughly say that with the increase in the number of children increases the likelihood of woman decision making in seeking health treatment. The correlation coefficient also suggests the same.

Quintile

The data of table 4.3 above shows that there is a strong relationship among the variable Wealth quintile and women decision making in seeking health treatment. A look at group of cases where the women makes the decisions herself reveals that the same is lowest in the lowest quintile (6.7%) and increases with the increase in the level of wealth quintile, the same proportion in the second and middle wealth quintile is 8.1% and 10.6% respectively, than in forth quintile it raises to 13.7% and we can see that the same is highest in the highest wealth quintile i.e, 19.3%.

The almost opposite pattern but with different proportions we can see in the cases where the head/father alone makes the decisions.

The cases where the Head/father makes the decisions in consultation with the spouse is more or less is the same for all the cases. The correlation co-efficient (0.00) also suggests the same.

In the cases where Head/father and spouse of the household decide in consultation with the women concerned, the data explanation clearly demonstrates that there is a strong association between Wealth Quintile and Women decision making. The correlation co-efficient (+ 0.14) also suggests the same. Hence we can roughly say that increase in the index of wealth quintile also increases the likelihood of women decision making regarding seeking health treatment.

Education

Considering the frequency distribution of the cases where the women makes the decisions by herself, it is evident that this proportion increases with educational level. We can also see that this percentage is lowest (9.1%) for the women who posses no education or less than class 1 education followed by 13.5 % and 15.2% for the woman who achieved Primary and Middle level of education respectively. This percentage increases gradually with the increase in the level of education and is (17.3 %) where the women posses secondary education. This percentage is highest where the education level of the women is higher or more (24.2%). The women who obtained the other education, the proportion of decision making for such women is 19.2%.

However the cases where the head / father makes the decisions alone presents almost the opposite picture where this percentage is highest (36 %) where the women concerned posses no education and reduces subsequently. The percentage where the women posses the middle education is 22.0 %. However the same % for the women who posses higher or more education is interestingly 26.9 %.

The cases where the Head/father in consultation with the spouse makes the decisions more or less presents the mixed pattern. The correlation coefficient suggests that there is no relationship between level of education of the women concerned and the decision making by head in consultation with the spouse.

Hence by looking at the pattern of the data where the woman makes the decisions by herself, we can presume that there is a positive association between the level of education and women decision making in seeking health treatment, i.e, by the increase in the level of education also increases the women decision making in seeking health treatment. The correlation co-efficient also suggests that there is a positive relationship between the level of education and women decision making.

Income

A look at the distribution of women decision making among different income groups reveals that there is a positive association between the women decision making and Income. The cases where the women herself makes the decisions are increasing, with the increase in income (excluding the first category where the woman has no income), starting from the second income group where the women have income less than Rupees 3500, in this group 8.5 % of the women makes the decisions by herself and increasing subsequently in the following income groups (14.3%, 21.6%, 31.0%) respectively for the third forth and fifth income groups. However the proportion of women who makes the decisions by herself for seeking health treatment in the household is surprisingly a bit high in first income group, where the woman do not has any income.

Further in case where the head / father decides alone is decreasing in general, with the increase in income. This percentage is highest where the woman do not posses any income and is lowest where the woman posses the income 25001 and above.

The data explanation clearly demonstrates that there is a strong association between Income and women decision making. The correlation co-efficient (+ 0.11) also suggests the same. Hence we can roughly say that increase in the income of women also increases the likelihood of women decision making regarding seeking health treatment.

4.4 Relationship Between the Independent Variables and Women Decision Making

To check the influence of each individual independent variable on women decision making we presents in table 4.4 a preliminary analysis using cross tabulation coupled with chi-square and logistic regression .

Table 4.4 The Individual Effect of Independent Variables on Women decision making in seeking health treatment using Cross Tabulation, Chi-Square Test and Logistic Regression

	Women Decision Making by herself in Seeking Health Treatment						
		Results of Cross Tabulation		Resultsof Chi-Square Test	Results of Logistic Regrassion		
Variables	**Frequency**	**Yes (%)**	**No (%)**	**P Value**	**Coefficient-B**	**Odds Ratio**	**P-Value**
Province							0.00
Punjab	9634	21.10%	78.90%		Reference		
Sind	5609	6.70%	93.30%		-1.306	0.271	0.00
NWFP	4988	7.50%	92.50%	0.00	-1.185	0.306	0.00
Baluchistan	3544	1.20%	98.80%		-3.078	0.046	0.00
Place of Residence							0.00
Urban	9887	15.0%	85.0%		Reference		
Rural	13888	9.7%	90.3%	0.00	-0.496	0.609	0.00

Variables	Frequency	Yes (%)	No (%)	P Value	Coefficient B	Odds Ratio	P-Value
Age							0.00
15-19	5738	5.4%	94.6%		Reference		
20-24	4470	9.1%	90.9%		0.571	1.771	0.00
25-29	3802	11.5%	88.5%		0.834	2.301	0.00
30-34	2913	14.2%	85.8%	0.00	1.075	2.929	0.00
35-39	2776	16.6%	83.4%		1.253	3.502	0.00
40-44	3138	19.6%	80.4%		1.458	4.297	0.00
45-49	939	19.2%	80.8%		1.431	4.181	0.00
Marital Status							0.00
Currently unmarried	8692	9.6%	90.4%	0.00	Reference		
Currently married	15084	13.2%	86.8%		0.363	1.438	0.00
Number of Children							0.00
0	10478	8.3%	91.7%		Reference		
1	2018	11.9%	88.1%		0.403	1.496	0.00
2	2192	14.1%	85.9%		0.598	1.819	0.00
3	2293	15.6%	84.4%	0.00	0.718	2.051	0.00
4	2215	17.2%	82.8%		0.834	2.303	0.00
5+	4580	14.6%	85.4%		0.642	1.9	0.00
Quintile							0.00
Lowest	4240	6.7%	93.3%		Reference		
Second	4679	8.1%	91.9%		0.213	1.237	0.00
Middle	4801	10.6%	89.4%	0.00	0.505	1.657	0.00
Forth	5059	13.7%	86.3%		0.798	2.22	0.01
Highest	4997	19.3%	80.7%		1.213	3.363	0.00
Education							0.00
No Education	15460	9.1%	90.9%		Reference		
Primary	2897	13.5%	86.5%		0.445	1.561	0.00
Middle	1437	15.2%	84.8%		0.585	1.795	0.00
Secondary	2120	17.3%	82.7%	0.00	0.739	2.094	0.00
Higher + Other	1836	24.2%	75.8%		1.166	3.21	0.00
	26	19.2%	80.8%		0.871	2.389	0.08
Income							0.00

No Income	20954	10.9%	89.1%		Reference		
1 to 3500	703	8.5%	91.5%		-0.275	0.76	0.05
3501 to 9000	691	14.3%	85.7%	0.00	0.309	1.362	0.01
9001 to 25000	732	21.6%	78.4%		0.807	2.241	0.00
25001+	696	31.0%	69.0%		1.299	3.664	0.00
Total	23776	11.9%	88.1%				

*Nikah solemnized but Ruksati not taken place is included in the category Unmarried.

Province of Residence

The largest proportion of cases in which the women herself makes the decisions regarding seeking health treatment in Pakistan has seen in the Punjab Province i.e, 21.1% followed by Sindh and NWF Province where 6.7% and 7.5% (respectively) of the women makes the decisions by herself regarding seeking health treatment. The same percentage for the Baluchistan Province is only 11.9%.

The data suggests that the proportion of Women Decision Making is variant among the provinces and the involvement of women in the decision making in the Punjab province is the highest and the same is the lowest in the Baluchistan Province. Chi-square statistical test also shows that the province of residence is highly significant as ($p= 0.00 <0.01$). Further the Logistic Regression also supports to our decision to accept the hypothesis that the effect of the province of residence on the decision making of women is significant.

Place of Residence

Table 4.4 above also shows the influence of Place of Residence on Women decision making. The proportion of cases where women herself makes the decisions regarding seeking health treatment is much higher in the urban areas (15.0%) as against the rural areas where this percentage is only 9.7%.

This data proposes that in urban areas woman has more say in decision making regarding seeking health treatment in comparison with rural areas. The Chi Square test and Logistic Regression also shows that Place of residence (rural and urban areas) influences the women decision making significantly ($p=0.00 > .01$) and the same is higher for the woman living in the Urban areas. Therefore, the research hypothesis that the effect of the place of residence on the decision making of women is significant can be accepted.

Age

The lowest percentage of the cases where the women herself makes the decisions regarding seeking health treatment is in the youngest age group 15-19 year (5.4 %) and this proportion gradually increases in the following older age groups (9.1%, 11.5%, 14.2%, 16.6%, 19.6% for the age groups 20-24, 25-29, 30-34, 35-39, 40-44 years) except the last age group of 45-49 years where this proportion is slightly less than the previous age group (19.2 %).

Thus, the data suggests that, in general, women decision making regarding seeking health treatment increases with the increase in the age. In other words there is a positive relationship between Age and Women decision making. Results of Chi-square statistical test and Logistic Regression also shows that the positive association between age and women decision making in seeking health treatment is highly significant (p=0.00<.01). Therefore, the research hypothesis that the age of the women has a significant effect on her decision making regarding seeking health treatment can be accepted.

Marital Status.

The table above 4.4 shows that the marital status influences the women decision making in seeking health treatment. From the women decision making data, it is revealed that the proportion of cases in which the women makes the decisions by herself is higher in currently married women (13.2%) compared with the women who are currently unmarried (9.6 %).

The chi square statistical test and logistic regression also suggests that difference in marital status have a significant affect(P =0.00< .01) on women decision making in seeking health treatment. Thus, the hypothesis that the marital status has a significant effect on the women decision making can also be accepted.

Number of children

The lowest percentage of cases where the woman herself makes the decisions regarding seeking health treatment has seen where the women do not have any child (8.3%) and this proportion gradually increases with the increase in the number of children (11,9%, 14,1%, 15,6%, 17,2% for the cases where the women have one or two or three or four children) except in the last category where the women have five or more living children (14.6 %) and this proportion is slightly less than the previous group where the women have four children.

Thus, the data suggests that, in general, proportion of the cases where the woman makes the decisions regarding seeking health treatment increases with the increase in age. Chi-square statistical test and logistic regression also shows that the positive association between number of children and women decision making in seeking health treatment is highly significant (p=0.00<.01). Therefore, the research hypothesis that the women decision making increases with age can be accepted or in other words we can say that the number of children have a positive significant effect on decision making of women.

Quintile

The data of table 4.4 above suggests that there is a strong relationship among the variable Wealth Quintile and women decision making in seeking health treatment. A look at the table reveals that cases where the woman makes the decisions by herself regarding seeking health treatment is lowest (6.7%) in the lowest Quintile and increases in the subsequent quintiles viz, 8.1%, 10.6%, 13.7% in the second, third and forth Quintile respectively and is highest in the highest quintile (19.3%).

The data explanation clearly demonstrates that there is a strong positive association between Wealth Quintile and Women decision making. Chi-square statistical test and Logistic Regression also proves that the influence of Wealth Quintile is statistically significant (p=0.00<.01). Thus

we can accept the hypothesis that women decision making increases with the increase in the index of wealth quintile or the welth quintile has a positive significant effect on the women decion making in seeking health treatment.

Education

It is very much evident from the data that the proportion of women decision making increases with educational level. The percentage of the women who achieved "higher+ level of education" have highest proportion of decision making 24.2 %, followed by the women who completed Secondary , Middle and Primary level of education (17.3% ,15.2% 13.5 % respectively). The lowest percentage of women decision making can be seen in the group with no education or less than class 1 education level (9.1%). The women who obtained the other education have the percentage of 19.2%.

Both Chi-Square Statistical test and Logistic Regression also reveals that the positive relationship between level of education and women decision making in seeking health treatment is highly significant ($p = 0.00 < 0.01$), hence we can accept the hypothesis that education has a significant positive effect on women decision making in seeking health treatment.

Income

The table 4.4 also shows the frequency distribution of women decision making with income categories. This indicates that an increase in the income of the women increases the chances of making the decisions by the woman herself. The percentage cases where the woman makes the decisions by herself, is lowest when the woman does not have any income (10.9 %). This percentage tend to increase as the income of the woman increases, the proportion of cases (where the women decides herself) for the second third and forth income groups are 8.5%, 14.3% and 21.6% respectively. Finally the same is highest in the highest income group (31.0 %).

Since the Chi-Square test and logistic Regression also indicates that the income variable is highly significant in women decision making ($p=0.00< .01$). So the hypothesis that the women decision making increases with the increase in income may be accepted or we can say that the income has a positive significant effect on women decision making regarding seeking health treatment.

4.5 Multivariate Logistic Regression Results

This section presents the results of Multivariate logistic regression model of the Determinants of Women Decision Making in Seeking Health Treatment in Pakistan. These results will answer our research questions and will identify the factors those influence the women decision making. These results can be divided as individual level factors, household level factors and community level factors.

Individual level and household level factors will answer our first research question that what are the Socio Economic and Demographic factors that affects the women decision in seeking health treatment in Pakistan? The community level variables will answer our second research question that what is the effect of Place of Residence and Province of Residence on the Decision Making of Women in Seeking Health Treatment and lastly looking at the significance level of all the variables the third research question can be answered that Which of the factors are more significant in the decision making of women in seeking health treatment?

4.5.1 Determinants of Women Decision Making in Seeking Health Treatment

The bivariate analysis was carried out in the previous section 4.4 to test the influence of each independent variable on the dependent variable (women decision making in seeking health treatment). This helped us in selecting the independent variables which had a significance affect on the dependent variable. In this section we will draw conclusions about the overall effect of eight independent variables on the dependent variable (Woman Decision Making in Seeking Health Treatment).

With the aim to draw conclusions about the relationship between independent variables, Province of Residence, Place of Residence, Age, Highest Education Attained by the Women, Wealth Quintile, Number of Children, Income, Marital Status (found significant by Chi- square test of association and by the bivariate logistic regression) and the dependent variable logistic regression model was run by using all the variables as categorical. The first category was taken as reference category. All explanatory variables that were identified through literature review were found highly significant at 1% level of significant in the Model.

Model II : Table 4.5 below is the result of Multivariate Logistic Regression model by taken into account all the eight independent variables and the Interaction Effect

Table 4.5 Results of Multivariate Logistic Regression - Determinants of Women Decision Making by Herself in Seeking Health Treatment (Model II With interaction effect)

Variables	Coefficient-B	P-Value	Odds Ratio	Confidence Interval	
				Lower Limit	Upper Limit
Community Level Factors					
- Province of Residence		0.000			
Punjab	Reference				
Sindh	-0.781	0.000	0.458	0.376	0.558
NWFP	-0.654	0.000	0.52	0.427	0.633
Baluchistan	-2.103	0.000	0.122	0.077	0.194
- Place of Residence		0.000			
Rural	Reference				
Urban	-0.219	0.000	0.804	0.733	0.881
Household Level Factors					
- Wealth Quintile		0.000			
Poorest	Reference				
Second	0.204	0.018	1.210	1.035	1.453
Middle	0.365	0.000	1.420	1.222	1.696
Forth	0.509	0.000	1.632	1.416	1.954
Richest	0.672	0.000	1.919	1.657	2.316
Individual Level Factors					
- Marital Status		0.000			
Currently Unmarried	Reference				

Married	-0.572	0.000	0.565	0.482	0.661
- Education		0.000			
No Education	Reference				
Primary	0.122	0.067	1.13	0.991	1.288
Middle	0.243	0.005	1.275	1.077	1.508
Secondary	0.299	0.000	1.349	1.168	1.558
Higher	0.488	0.000	1.629	1.396	1.901
Other	1.139	0.033	3.125	1.094	8.927
- Number of Children		0.000			
No Child	Reference				
One Child	0.77	0.000	2.16	1.713	2.722
2 Children	0.9	0.000	2.459	1.96	3.085
3 Children	0.878	0.000	2.405	1.921	3.012
4 Children	0.905	0.000	2.472	1.96	3.118
5 or More	0.925	0.000	2.521	2.017	3.15
- Age		0.000			
15-19	Reference				
20-24	0.465	0.000	1.592	1.351	1.877
25-29	0.747	0.000	2.11	1.753	2.54
30-34	1.022	0.000	2.778	2.267	3.405
35-39	1.21	0.000	3.353	2.722	4.131
40-44	1.427	0.000	4.167	3.389	5.124
45-49	1.33	0.000	3.781	2.919	4.899
- Income		0.000			
No Income	Reference				
Less than 3500	-0.525	0.000	0.591	0.447	0.783
3500-9000	0.076	0.522	1.079	0.856	1.359
9001-25000	0.505	0.000	1.657	1.361	2.017
25001 or More	0.547	0.000	1.729	1.428	2.093
Interactive Effects					
No. of Children*Province (No child*Punjab) (Ref.)		0.000			
1 child*Sindh	-0.637	0.005	0.529	0.34	0.823
1 child*NWFP	-0.572	0.016	0.564	0.354	0.898
1 child*Balochistan	-1.087	0.087	0.337	0.097	1.17
2 children*Sindh	-0.899	0.000	0.407	0.268	0.617
2 children*NWFP	-0.528	0.015	0.59	0.386	0.901
2 children*Balochistan	-0.758	0.118	0.469	0.182	1.211
3 children*Sindh	-1.07	0.000	0.343	0.22	0.534
3 children*NWFP	-0.75	0.000	0.472	0.312	0.714
3 children*Balochistan	-0.687	0.134	0.503	0.205	1.234
4 children*Sindh	-0.938	0.000	0.391	0.259	0.593
4 children*NWFP	-0.482	0.014	0.618	0.421	0.906

4 children*Balochistan	-1.296	0.021	0.274	0.091	0.823
5 or more children*Sindh	-0.724	0.000	0.485	0.357	0.659
5 or children*NWFP	-1.01	0.000	0.364	0.263	0.505
5 or more children*Balochistan	-2.221	0.000	0.108	0.036	0.323
Omnibus Test of Model coefficient			=	0.00	
Nagelkerke R Square			=	21.3%	
Hosmer and Lemeshow Test			=	0.920	
Correct Predictions by the Model (Classification Table)			=	88.20%	

Model Fit

As indicated by the Nagelkerke R square, the overall model explains about 21.3 % of the variation in the dependent variable i.e, Women Decision Making in Seeking Health Treatment, which is reasonably fine for Logistic Regrassion Model. The classification plots tell us the percentage of the predictions that have been made by the model correctly. Classification table has shown that 88.2 % of the predictions made by the model were correct, which also indicates the high accuracy of the predictions made by the model. Omnibus test of model coefficients tells us that including the independent variables improves the model or not. Omnibus test has shown that the overall model is highly significant at 1% level of significance i.e, including the variables in the model, the model improves significantly. Hosmer and Lemeshow test tells us about the lack of fit of the data, here we want the value >.05, since .920>.05, meaning that the model fits the data very well.

Model II of women decision Making in seeking health treatment shows that all the variables i.e, Province of Residence, Place of Residence, Age, Highest Education attained by the women, Wealth Quintile, Number of Children, Income and Marital Status identified through literature review are highly significant, further more the interaction effect of number of children and province of residence on women decision making is also highly significant.

Community level Factors

Province of Residence

The reference category for the variable province of residence is Punjab province. This means that all the provinces i.e, Sindh, NWFP and Baluchistan will be compared with the Punjab province. From the table 4.5 we can see that all the categories of the province of residence are highly significant (p value = 0.00 <.01). The same result regarding the significance of the over all variable Province of Residence was also found (by using Chi Square test of association and bivariate logistic regression).

The effects of living in Sindh, NWFP and Baluchistan Province decreases the odds of women decision making in seeking health treatment by .458 times, .520 times and .122 times respectively compared with the reference category i.e, the Punjab Province (OR= 0.458, 0.520, 0.122 respectively) or in other words we can say that the odds that the women will have a say in decision making regarding seeking health treatment in Sindh, NWFP and Baluchistan Province will be (1-.458=.542) 54.2 %, 48.0 % and 87.8 % (respectively) less compared with the reference category (Punjab Province). Hence our hypothesis that the effect of the province of residence on the decision making of women is significant can be accepted.

Place of Residence

The model shows that women decision making in seeking health treatment is associated with the Place of Residence and is highly significant in the model. The Chi square statistical test and bivariate logistic regression have also shown the same result.

The reference category for the place of residence is urban area. The model indicates that the Odds of women decision making in seeking health treatment in rural areas decreases by 0.804 times compared with urban areas (OR=0.804), or we can say that the odds that the women has a say in decision making regarding seeking health treatment are less by(100-80.4%) 19.6 % in the Rural areas compared with the Urban areas. Thus our hypothesis that the effect of the place of residence on the decision making of women is significant is also supported by these findings.

Household level Factors

Wealth Quintile

Based on the results of the logistic regression we can say that there is a positive relationship between the women decision making in seeking health treatment and the Wealth Quintile. The odds of women decision making increases with the increase in the index of the wealth quintile. The reference category for the variable wealth quintile is the Poorest quintile. The odds of women decision making are higher by 1.210,1.420 and 1.632 times for the second, middle and forth quintile as compare to the reference category (poorest quintile) or we can say that the odds of women decision making are higher by 21.0 %, 42.0 % and 63.2 % for the second , middle and forth quintile as compare to the reference category (poorest quintile). Among all the wealth quintiles, the richest quintile has the highest odds (OR= 1.919) for women decision making regarding seeking health treatment. In percentages we can say the women in the richest quintile have 91.9 % higher odds of making the decisions regarding seeking health treatment compared with the women living in the poorest quintile.

Further a look at the significance level of each category and the over all variable it reveals that except the second wealth quintile all the quintiles are highly significant at 1 % level of significance (second quintile is significant at 5 % level of significance), we have also seen by applying chi-square test and bivariate logistic regression that the over all Wealth Quintile Variable is highly significant. Hence we can accept the hypothesis that the women decision making regarding seeking health treatment increases with the increase in the index of wealth quintile or we can say that wealth quintile has a significant positive effect on the women decision making in seeking health treatment.

Individual level factors

Marital Status

Results for the Multivariate logistic Regression presented in the table 4.5 indicates that Marital Status is a significant predictor in the model ($p=0.00 < .01$). The same result we also found during running the bivariate logistic regression and Chi-Square test of association. In table 4.5 we can see that there is a significant difference in the odds of married women's decision making compared with the same with the unmarried women. The odds of married women's decision making are less by .565 times than the odds of the unmarried women. Or we can say that the odds of decision making for the married women are 43.5 % less than that for the unmarried women. However it is very interesting to look at this result, because different results we have found in case of bivariate logistic regression and through chi square test where we have seen that the married women has more chances of making the decisions by theirselves compared with the

unmarried women. This leads us to accept the hypothesis that the effect of marital status is highly significant and is positive when we see the individual effect of marital status on women decision making and the same effect is also significant but is negative when we see the combined effects on women decision making.

Education

The odds of women decision making according to the level of education attained by the women are significantly different between the different categories of education, we can see that all the education categories seem to have a different effect on women decision making compared to the reference category and the same is increasing with the increase in the level of education.

Table 4.5 reveals that the odds of women decision making are significantly higher in all the categories where the women has attained at least primary education compared with the reference category (No education). The odds ratios where the woman has attained Primary, Middle , secondary and higher education are 1.130,1.275, 1.349 and 1.629 respectively. The odds for the other education category are 3.125. So there seems to be a positive affect of education on women decision making. This is exactly what we have hypothesized earlier. Hence our hypothesis that the education has a significant positive effect on decision making of women for seeking health treatment can be accepted.

Number of Children

Since from the table 4.5 we can see that the number of children is highly significant for all categories. The reference category in this case is the woman who do not have any living child,(these women may be either currently unmarried or they are currently married but having no child). Odds ratios for different categories of the variable explains that number of children increase the odds of women decision making. The odds of women decision making are 2.160, 2.459, 2.405, 2.472, 2.521 times higher for the women having one or two or three or four or 5+ children respectively compared to the reference category.

Further we have also seen by applying chi-square test that the overall number of Children Variable is highly significant. Hence we can accept the hypothesis that education has a significant positive effect on women decision making.

Age

From table 4.5 we can see that the odds ratios and the parameter values are getting higher for each higher age group except the last age group where the odd ratios and the parameter value is a bit lower than the same for the second last age group. This gives us some evidence that there is a positive relationship between age and women decision making. The odds of women decision making are 1.592 times greater for the women in the second age category (20-24 years) compared with the women of first age group (15-19 years). For the third age group (25-29 years) the odds of women decision making are 2.11, meaning that the odds of women decision making are 2.11 times higher for women aged (25-29 years) compared with woman aged 15-19 years. The odds of women decision making are 2.778 times higher for women aged 30-34 years compared with the woman aged 15-19 years. For women aged 35-39 years the odds ratio of women decision making is 3.353. The odds of women decision making are 4.141 times higher for women aged 40- 44 compared with the women aged 15-19 years. The odds for the last age

group 45-49 years are a bit lower than the previous age group and are 4.167 times the odds in the reference category. The trend clearly indicates that the odds of women decision making increases with each higher age category. Since all the categories are highly significant and the same results about the overall variable were also found through bivariate analysis so we can accept the hypothesis that, The effect of age on women decision making is significant and positive.

Income

In table 4.5 we can see that except the third income group all the other income groups are highly significant . We also found through the chi square test of association that the income variable is highly significant.

Although the odds of women decision making are less in the second income group (income less than 3500/year) but since the same are higher in the income groups third, forth and fifth and as the over all variable income is significant so we can expect that with the increase in income also increases the odds of women decision making. The odds of women decision making are higher by 1.657 times for the women having an income between 9001-25000 compared with the women who do not posses any income. Similarly the odds of women decision making are 1.729 times higher for the women having income 25001+ compared with the reference category. Since also by chi–square test we have seen that the over all variable income is significant hence we can accept our hypothesis that the income variable has a significant positive effect on women decision making in seeking health treatment.

Interaction Between Province of Residence and Number of Children

Since the main effects in Model I (Please see Appendix I) shows that the three provinces namely Sindh, NWFP and Baluchistan province have different lower odds of women decision making compared with the Punjab province. Moreover the literature suggests that there could be an interaction between Province of Residence and Number of Children.

When the model with the main effects (Please see Appendix I) was fit the value of Nagelkerke R Square was 20.7% which has been improved to 21.3 % by introducing the interaction effect. The value for Hosmer and Lemeshow Test was .003 earlier which shows a lac of fit however by taking into account the interaction term the value for Hosmer and Lemeshow Test becomes .920 which shows that the model fits the data well. There is no change in the value of Omnibus test which is zero in both the cases meaning that in both the cases all the variables are highly significant. Further more the interaction term is highly significant in the model as well.

The interaction between Province of Residence and the number of children shows that the effect of number of children on women's decision making is not the same for all the four provinces.

CHAPTER FIVE
Conclusion and Recommendations

5.1 Summary of Results

The overall objective of this research was to identify the factors associated with the Women Decision making in seeking Health Treatment in Pakistan. On the basis of a sample of 23766 women of age 15-49 years the analysis presented in the previous chapter reveals that in most of the cases the decision in the households regarding seeking health treatment were not made by the women (88.1%). The cases where the women herself makes the decisions regarding seeking health treatment, such proportion is very low (only 11.9 %).

The Socio-Economic and Demographic variables that have been identified in this research are age, education of the women, marital status, wealth quintile of the household, Income of the women and the number of living children. All the variables have shown a significant (significant at 1 % level of significance) influence on women decision making in seeking health treatment in Pakistan. Age, income of women , wealth quintile, number of living children, education of woman all are positively associated with the women decision making in seeking health treatment. The bivariate analysis revealed that the Married women have higher odds to make the decisions regarding seeking health treatment compared with the unmarried women, while Multivariate analysis shows otherwise.

Rural women have lower odds to make the decisions than the urban women. Women living in Punjab province have a stronger say in decision making compared with the other provinces while the women living in the Baluchistan province have the least.

In the logistic regression model we have tried to check the overall effect of each significant variable while controlling the effect of the other variables, and found that all the factors mentioned above are highly significant in Decision Making of Women in seeking health treatment, however the effect of number of children on women's decision making is not same for all the four provinces.

5.2 Discussion

Our first Question of the study was that:
What are the Socio economic and demographic factors that influence women D.M in seeking Health Treatment in Pakistan?

We have identified that Income of Women, Education, Age, number of children, Wealth Quintile and Marital status all are the significant determinants that affect the women's decision making in seeking health treatment.

Usually the Pakistani women are the house wives and they do not expect to have income. They are usually unemployed and sometimes they are engaged in unpaid employment (assisting their husbands on the farm land etc). Their economic conditions restrict them from decision making even the daily life decisions which also include the decisions regarding seeking health treatment. The relationship between the income of the women and her decision making is very much obvious because of her dependency on men in seeking paid treatment. Previous studies from the other countries of South Asia also shows that the lack of paid employment/ Income is the main causes for low participation of women in decision making (Negi 2009 and Regmi 2010).

It was found that women's autonomy in decision making regarding seeking health treatment increases with the increase in the index of Wealth Quintile. This result is also supported by the study conducted in Rural Bangladesh where it was found that women living in richer households sought more health care compared with those from poor households (Ahmed 2005).

Since education makes the women self-assured about the possibilities and gives them an exposure about their rights. As educated women can come up with new ideas and can influence the decisions of their mother in Law's who traditionally makes the decisions about the young married women in seeking health treatment (Chanana K. cited by Acharya 2010). So we can expect that the higher the education of the women the higher the chances of decision making by themselves.

No doubt that education may reduce the power differentials but experiences from other South Asian counties reveals that only income and education are not sufficient to address the gender inequality in this region. If we want that education may aim to promote the autonomy of the women, we will have to take the gender equity at the policy level (Senarath and Gunawardena 2009) to fight with traditional and cultural norms.

Our results indicates that the marital status have a significant effect on the decision making of women. This result is also supported by the study conducted by Khan and Sajid in Gujrat on the effect of education and marriage on the decision making power of women in household decisions. They found that women with more than six years of their marriage period are significantly associated with their decision making in household matters (Khan and Sajid 2011).

We have found that women's autonomy in decision making regarding seeking health treatment increases with age. The fact is that the new married daughter in law has to work with in the household under the supervision of the mother in law. Khan & Sajid argued that as the female spent more time in marital status she has greater concern about their participation in decision making (Khan & Sajid 2011). The studies form other countries of South Asia including, Bangladesh, India, Nepal tell us that with the increase in age the women gain more autonomy with in the household sphere (senarath and Gunawardena 2009). Gupta also highlighted that there is sufficient evidence, especially in the anthropology, that a woman's status rises and falls over her life cycle (Gupta 1996).

The study reveals that there is a positive relationship between number of children and autonomy of women in decision making regarding seeking health treatment. It is believed that in the traditional societies the autonomy of the women increases with the increase in the number of children. Garcia and Oliveira (1995) also emphasized that in the patriarchal system number of children mainly sons add to the status of the woman (Garcia and Oliveira 1995, cited by Awan R. 2011). This finding is also supported by the studies conducted in the other countries of South Asia (Senarath & Gunawardena 2009 and Acharya et. al. 2010) .

Our Second Question of the study was that:
What is the effect of Place of Residence and Province of Residence on the Decision Making of Women in Seeking Health Treatment?

Our results indicates that there exists a great variations in women's decision making in seeking health treatment among the four provinces and rural / urban divide. The explanation to this argument is that Pakistan is a country that comprises of different sub-cultures and there exists a cultural diversity among the four provinces (Shah and Amjad 2011). Sathar and Kazi 2000 also argues that Different socio-cultural settings effects the women's individual background characteristics which have an influence on their decision making (Sathar and Kazi 2000). Haq 2009 has also emphasised that the status of women in Pakistan due to uneven socioeconomic development vary considerably across different regions of the country and the rural/urban divide (Haq 2009). Our study supports all these arguments. This also confirms the Rodman's theory of marital power in the cultural context that marital power is not only affected by the resources of the parties, but also by the cultural norms which describe the marital power.

These finding are also consistent with the findings of the studies conducted in India (Kumar 2009) where they found that there exists a great regional variations in the levels of women's autonomy. Regmi 2010 also found the same results through the data of Nepal's DHS that the women's decision making is not the same in all the regions of the country. Chavoshi et al (2004) too come up with the same results that there is a difference between provinces in terms of women's autonomy.

Our third Question of the study was that:
Which of the factors are more significant in the decision making of women in seeking health treatment?
In the logistic regression model we have tried to check the overall effect of each significant variable while controlling the effect of the other variables in the final model and found that all the factors mentioned above are highly significant in Decision Making of Women in seeking health treatment, however the effect of number of children on women's decision making is not same for all the four provinces.

5.3 Limitations of the Study

In this study the women autonomy in decision making regarding seeking health treatment has been considered from the point of view of the woman only information on the other factors like

composition of the household in which the women lives e.t.c. has not been incorporated due to the limitations of the data.

Notwithstanding the limitations, the study has identified various factors that effects the decision making of women in seeking health treatment in Pakistan. Three levels of factors i.e, individual level, household level and Community level factors have been identified as predictors of Women Decision Making in Seeking Health Treatment in Pakistan.

5.4 Recommendations

A variety of issues which includes low levels of skills and literacy, lack of employment opportunities for the female, social and cultural norms contribute towards the disadvantaged position of the women in Pakistan. Comprehensive strategies involving improving the literacy level, labor Force Participation of the females, adopting programs that create awareness regarding women rights and fostering a legal environment that encourages women's participation in decision making in seeking health treatment can improve/enhance the women's participation in seeking health treatment.

Investment in Improving the Female literacy level
Education makes women aware of their rights, In Pakistan because of low literacy level particularly in rural areas, women do not know about their rights. Education can give them the exposure to their rights. By establishment of new schools, colleges and universities for women particularly in slum rural areas the literacy level of the women in those areas may be increased.

Curricula Development
Usually social and cultural norms direct to inequalities in the society. Curricula of education should be designed in such a way that may aim to promoting empowerment of women and reduction in inequalities.

Creation of Vocational Training centers
Since income of a women increases her decision making power in the household, so by providing them the vocational training, we can provide an opportunity to have the income of their own. Thus by taking appropriate actions in this regard and establishing such vocational training centers we can not only provide them the opportunities to have their income but they can contribute to the well being of the household as well.

Creation of Employment Opportunities for the Female
As elaborated earlier that to improve the women's autonomy in decision making income of the women plays an important role, thus creation of job opportunities for female not only in the private sector but in the public sector as well can increase the participation of women in decision making. International evidences on the success of job quotas to improve women's participation in different sectors suggest that quotas can improve gender equality. Keeping in view the labor market conditions for women, it may be more useful to increase the quota of the women in the government jobs. Home based work by women is an additional labor market where the government can play a facilitating role.

Creating a Legal Environment
Creation of a legal environment that encourages women in making decisions in very essential. By enforcement of existing laws relating to women may result in better participation of women in decision making.

Future Work
More gender-sensitive research may be done to investigate women's autonomy in health care seeking. Qualitative research such as focus group discussions / in-depth interviews may be carry out to identify gender-related determinants of women's decision making in seeking health treatment.

The policies proposed above are embattled towards increasing women's participation in seeking health treatment. These policy suggestions range from improving women's education & skills to adopting laws. Realization of such policy initiatives will foster an environment that can increase women's participation in decision making process which in return will result in better health outcomes.

5.5 Conclusion

Autonomy of women in decision making regarding seeking health treatment is key to the health for not only the women but for the children as well. Despite of the efforts in Pakistan to empower the women in recent years but still the situation looks to be austere. The key factors that contributes towards stumpy participation of women in Decision Making regarding Seeking Health Treatment in Pakistan includes, Low levels of education of women, insufficient sources of income /employment opportunities for women accompanied with traditional / cultural norms. These factors often restrict the women from decision making regarding seeking health treatment in Pakistan. Women living in the rural areas and those living in the Baluchistan, Sindh and NWF Province needs special empowerment Progammes.

They can be empowered through creation of new employment opportunities and establishment of new schools, colleges and universities for them. Home based work by women (particularly for those who are living in the rural areas of the country) is an additional labor market where the government can play a facilitating role by supporting them through micro financing and providing them the trainings through vocational training centers. To combat with the traditional norms the curricula of the educational programmes should be designed in such a way that may promote gender equality coupled with the creation of such a legal environment that may assure the rights of the women.

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APPENDIX- I

Table 4.6 Results of Multivariate Logistic Regression - Determinants of Women Decision Making by herself in Seeking Health Treatment

Variables	Coefficient-B	P-Value	Odds Ratio	Lower Lt.	Upper Lt.
Community Level Factors					
- Province of Residence					
Punjab	**Reference**	0			
Sindh	-1.338	0	0.262	0.233	0.296
NWFP	-1.138	0	0.32	0.284	0.362
Baluchistan	-2.961	0	0.052	0.038	0.07
- Place of Residence					
Rural	**Reference**				
Urban	-0.219	0	0.803	0.733	0.88
Household Level Factors					
- Wealth Quintile					
Poorest	**Reference**	0			
Second	0.198	0.021	1.219	1.03	1.442
Middle	0.356	0	1.427	1.213	1.679
Forth	0.494	0	1.638	1.396	1.923
Richest	0.655	0	1.924	1.63	2.272
Individual Level Factors					
- Marital Status					
Currently Unmarried	**Reference**				
Married	-0.551	0	0.577	0.493	0.675
- Education					
No Education	**Reference**	0			
Primary	0.14	0.034	1.151	1.011	1.31
Middle	0.24	0.005	1.271	1.075	1.503
Secondary	0.312	0	1.366	1.183	1.576
Higher	0.488	0	1.629	1.397	1.9
Other	1.14	0.036	3.127	1.078	9.072
- Number of Children					
No Child	**Reference**	0			
One Child	0.546	0	1.726	1.412	2.112
2 Children	0.637	0	1.892	1.552	2.306
3 Children	0.573	0	1.773	1.45	2.169
4 Children	0.637	0	1.89	1.536	2.326
5 or More	0.581	0	1.787	1.458	2.192

- Age					
15-19	**Reference**	0			
20-24	0.453	0	1.573	1.333	1.856
25-29	0.755	0	2.128	1.765	2.564
30-34	1.039	0	2.827	2.304	3.467
35-39	1.226	0	3.407	2.764	4.2
40-44	1.438	0	4.211	3.424	5.181
45-49	1.355	0	3.876	2.995	5.016
- Income					
No Income	**Reference**	0			
Less than 3500	-0.501	0	0.606	0.458	0.801
3500-9000	0.096	0.415	1.1	0.874	1.385
9001-25000	0.496	0	1.643	1.352	1.997
25001 or More	0.57	0	1.769	1.462	2.14
Omnibus Test of Model coefficient			=	0	
Nagelkerke R Square			=	20.70%	
Hosmer and Lemeshow Test			=	0.003	

APPENDIX- II-A

Relationship Between Socio Economic and Demographic Characteristics and Woman Decision Making after conversion of the outcome variable as Dichotomous (Women herself or her involvement with any other combination in decision making regarding seeking health treatment) (Sample Size = 23799)

		Women has a say in decision making in seeking heath treatment		
	Frequency	Yes (%)	No (%)	P Value
Province	9634	43.9%	56.1%	0.00
Punjab	5609	22.5%	77.5%	
Sind	4988	21.0%	79.0%	
NWFP	3544	6.8%	93.2%	
Baluchistan	23775	28.5%	71.5%	
Total				
Place of Residence				0.00
Urban	9887	33.9%	66.1%	
Rural	13888	24.7%	75.3%	
Total	23775	28.5%	71.5%	
Age				
15-19	5738	32.0%	68.0%	0.00
20-24	4470	30.3%	69.7%	
25-29	3802	25.5%	74.5%	
30-34	2913	25.0%	75.0%	
35-39	2776	26.2%	73.8%	
40-44	3138	28.4%	71.6%	
45-49	939	29.2%	70.8%	
Total	23776	28.5%	71.5%	
Marital Status				
Currently Married	8692	38.1%	61.9%	0.00
Unmarried/widow/widower/divorced/Nikah	15084	23.0%	77.0%	
Solmnised but rukshati not taken place	23776	28.5%	71.5%	
Total				
Number of children				
0	10478	33.8%	66.2%	0.00
1	2018	24.4%	75.6%	
2	2192	24.6%	75.4%	
3	2293	23.8%	76.2%	
4	2215	25.6%	74.4%	
5+	4580	23.8%	76.2%	
Total	23776	28.5%	71.5%	
Quintile				
Lowest	4240	20.4%	79.6%	0.00
Second	4679	24.3%	75.7%	

Middle Forth Highest Total	4801 5059 4997 23776	25.8% 31.8% 38.5% 28.5%	74.2% 68.2% 61.5% 71.5%	
Education No Education Primary Middle Secondary Higher + Other Total	 15460 2897 1437 2120 1836 26 23776	 24.2% 31.0% 37.1% 37.6% 43.3% 30.8% 28.5%	 75.8% 69.0% 62.9% 62.4% 56.7% 69.2% 71.5%	 0.00
Income 1 to 3500 3501 to 9000 9001 to 25000 25001 to Highest	 20954 703 691 732 696 23776	 27.5% 29.9% 29.8% 38.9% 45.1% 28.5%	 72.5% 70.1% 70.2% 61.1% 54.9% 71.5%	 0.00

APPENDIX- II-B

Table 4.11 Results of Multivariate Logistic Regression - Determinants of Women Decision Making by herself and with other combinations in Seeking Health Treatment

Variables	Coefficient-B	P-Value	Odds Ratio	Confidence Interval	
				Lower Limit	Upper Limit
Community Level Factors					
- Province of Residence					
Punjab	**Reference**	0			
Sindh	-0.967	0	0.38	0.352	0.411
NWFP	-1.035	0	0.355	0.327	0.386
Baluchistan	-2.253	0	0.105	0.091	0.121
- Place of Residence					
Rural	**Reference**	0			
Urban	-0.219	0	0.803	0.752	0.858
Household Level Factors					
- Wealth Quintile					
Poorest	**Reference**	0			
Second	0.167	0.002	1.182	1.062	1.316
Middle	0.092	0.093	1.096	0.985	1.22
Forth	0.239	0	1.27	1.142	1.413
Richest	0.339	0	1.403	1.254	1.569
Individual Level Factors					
- Marital Status					
Currently Unmarried	**Reference**				
Married	-0.992	0	0.371	0.332	0.415
- Education					
No Education	**Reference**	0			
Primary	-0.004	0.927	0.996	0.907	1.093
Middle	0.193	0.002	1.213	1.074	1.371
Secondary	0.207	0	1.23	1.106	1.368
Higher	0.347	0	1.415	1.253	1.6
Other	0.45	0.341	1.568	0.622	3.957
- Number of Children					
No Child	**Reference**	0.025			
One Child	0.213	0.004	1.238	1.07	1.432
2 Children	0.196	0.009	1.216	1.05	1.409

3 Children	0.049	0.531	1.05	0.902	1.222
4 Children	0.131	0.103	1.14	0.974	1.336
5 or More	0.146	0.059	1.157	0.994	1.346
- Age					
15-19	**Reference**	0			
20-24	0.118	0.017	1.126	1.021	1.241
25-29	0.195	0.002	1.215	1.076	1.371
30-34	0.32	0	1.377	1.197	1.585
35-39	0.397	0	1.488	1.283	1.724
40-44	0.506	0	1.659	1.432	1.922
45-49	0.503	0	1.653	1.358	2.013
- Income					
No Income	**Reference**	0			
Less than 3500	-0.2	0.025	0.819	0.688	0.975
3500-9000	-0.112	0.21	0.894	0.75	1.065
9001-25000	0.207	0.013	1.23	1.045	1.448
25001 or More	0.263	0.003	1.301	1.096	1.544

Omnibus Test of Model coefficient	=	0
Nagelkerke R Square	=	18.5%
Hosmer and Lemeshow Test	=	0.112
Correct Predictions by the Model (Classification Table)	=	73.60%