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Assessing the Role of Maternal Health Care Knowledge and Practices in Postpartum Depression

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Abstract

The present study aims to access the role of maternal health care knowledge and practices in developing postpartum depressive symptoms among Pakistani women. The data was collected from 400 rural mothers, having a child up to one year of age in four rural towns of Faisalabad. An interview schedule approach was used for collection of data. Results showed that lack of education, income, maternal health care knowledge and health care practices were the most important predictors of postpartum depression. The values of chi-square (26.419) and (59.734) showed a highly significant association (P = 0.000) between lack of health care knowledge and postpartum depressive symptoms and health care practices as well as postpartum depressive symptoms, respectively. Additionally, the compulsion of social taboos (eat specific food, not allow to go outside home, infant care, spouse attachment) in the antenatal/postpartum period increased the level of emotional distress such as low mood, anxiety, poor concentration and stress. The study suggested that women's consultancy with a health care professional to obtain postpartum instructions is beneficial for healthy mothers and their child.

Keywords: Health care knowledge; Health care practices; Social taboos; Postpartum mothers; Depressive symptoms.

1. Introduction

Health knowledge in itself is considered a powerful tool influencing child and maternal health. It is probably the most important factor of change and has an adverse positive effect in order to alleviate all health related challenges. Educated women tend to take care themselves as well as their children in a better way because of more knowledge of medical care. In this context, maternal health knowledge is necessary for health improvement, lower fertility, lower maternal and child mortality and nutritional awareness. In Pakistan, most of women are unaware about their mental health conditions due to ignorance, lack of knowledge and illiteracy. The extremely narrow approach to remain women uneducated is the culture of Pakistani society. Cultural factors consist of a set of values and beliefs specified for an individual; through which culture decides the particular way to behave. For example, in Pakistan, the joint family system is still a value and family ties is a condition (Anjum and Zahira, 2018).

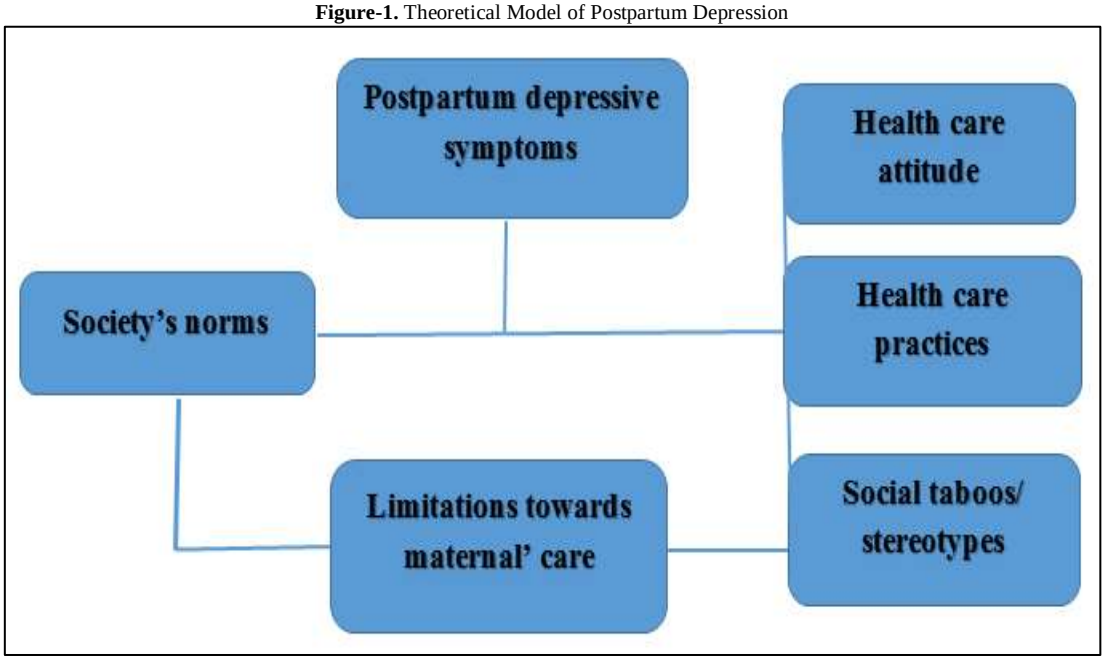
A woman has a different set of beliefs and habits which she develops from her family background and personal maternal characteristics. The contradiction between her personal experiences and society's demands put the pressure on women (Beck, 2002). Mothers are expected to wear simple dresses, eat specific food items and not allowed to take a bath or go outside home during pregnancy and within the forty days after childbirth. In addition, infants are suspected of black magic, should be kept the iron related material nearby the baby for safety. These social experiences and pressure to perform such taboos have an adverse effect on women's life.

The conflict of a mother's role and lack of knowledge about antenatal and postnatal health practices leads to anxiety, low mood and cry episode (Ghubash and Eapen, 2009). It has negative impact on mental health when didn't understand the term depression as a type of mental disorder. In another way, in-laws' home environment didn't allow them to share their feelings someone. Maternal are not allowed for checkup and treatment during pregnancy and pressurize to deliver baby at home. These are interrelated sets of factors that could be highly influenced to

elevate the incidence of postpartum depression. Postpartum is a period started immediately after childbirth and may continue to one year (Anjum and Zahira, 2019). In this period, many women experience minor symptoms of postpartum depression, but some of them are susceptible when the symptoms are severe and have a long period. The most common symptoms of postpartum depression among women are sadness, anxiety, body pain, changes in eating and sleeping pattern, low energy, crying incidents, fear of being alone, loss of concentration and confidence, reduce desire of sex, irritability and thought of self-harm or suicide (Beck and Indman, 2005; Web, 2016).

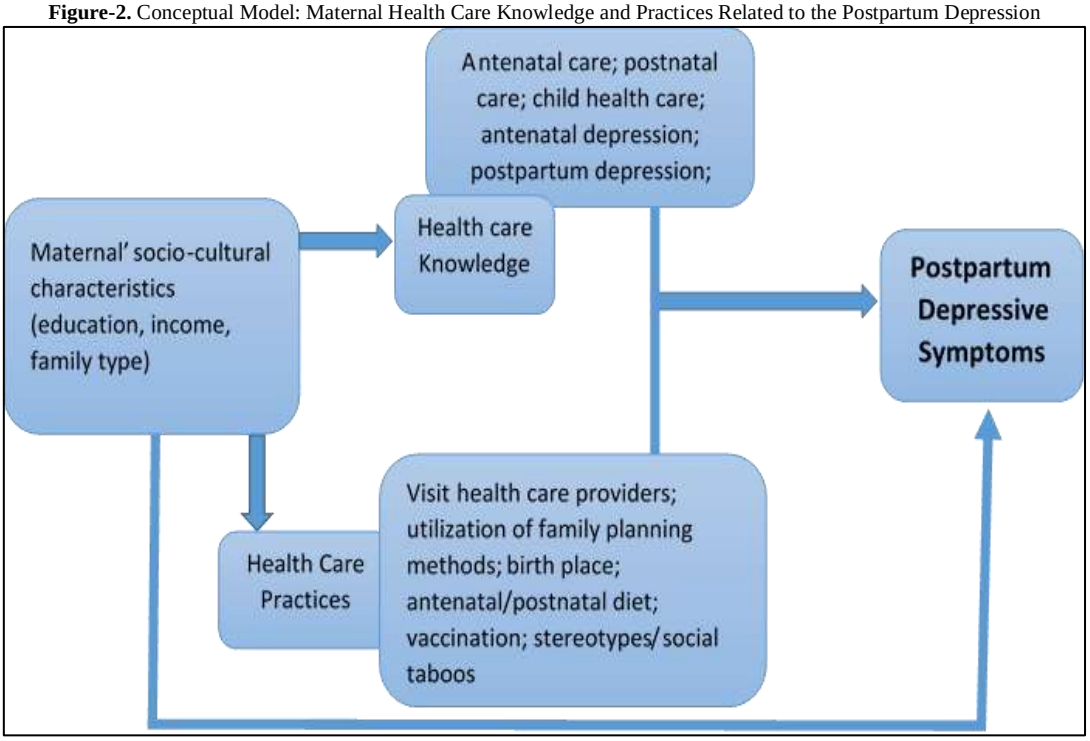
Beck's theory of postpartum depression (2002) focuses on society's norms in such a way to set a platform for women creating contradiction to continue normal routines of everyday life. In course of limitations, the inconsistency between maternal' personal feelings and societal expectations leads to the chances of depressive symptoms in postpartum period.

Figure-1. Theoretical Model of Postpartum Depression



Conceptual framework has a greater importance in the research process that support a researcher to build up a sense of subsequent results of possible factors of a specific phenomenon. There is no single one factor that can be interrelated with postpartum depression, it may exist because of unified factors. These factors consist; maternal characteristics (education, family type), health knowledge and attitude towards health care practices. Lack of knowledge and pressure to cultural practices showed effect to elevate the symptoms of postpartum depression among women.

Figure-2. Conceptual Model: Maternal Health Care Knowledge and Practices Related to the Postpartum Depression



Several previous studies identified a clear relation between health care knowledge, practices and depression in the postpartum period. The findings of the researches, Hansotte *et al.* (2017) and Gani and Ali (2013) identified the obstacles of treatment patterns such as low level of education, financial constraints, inadequate health facilities, family type and restrictions in accessing health care and services. All these factors are to be considered hazardous to women's health, particularly in their reproductive period; and were the most prominent postpartum depression.

By another, Kalar *et al.* (2012), the prevalence rate of depression was found to be higher in developing countries than developed countries because of illiteracy, lack of knowledge of health care, inadequate health services, high birth rate, number of female children and insufficient social security system. The study hypothesized that increased in adopting family planning methods may be relate to the positive relations with low birth rate. But the culture of developing societies didn't allow to utilize these methods, even couples have no knowledge of these methods. Tobin *et al.* (2017), illustrated in the same line as postpartum mothers experienced low mood, anxiety and depression due to lack of understanding of their condition, pressure to perform cultural practices and barriers to obtain health facilities.

Jin *et al.* (2016), examines the risk factors of postpartum depressive symptoms among immigrant Chinese women in Japan. The data was collected form mothers who just discharge from hospitals by using EPDS (Edinburgh Postnatal Depression Scale) and social support scale (to measure the cross-cultural stressors in the postpartum settings). The results showed that mothers with first child birth were more depressed because they could not adopt a Zuoyuezi tradition (postpartum Chinese tradition) in the Japanese hospital. It means the traditional practices and social support decrease the chances of depression among women. After delivery, mothers are required to rest at home for a month under the supervision of mother-in-law. Support of mother-in-law in caring of maternal and infant were helpful to elevate the symptoms of depression such as low mood, anxiety and crying episode. In such cases, some traditional practices were found to be associated with postpartum depressive symptoms. For instance, mothers were forced to eat specific foods and herbs, where herbs are used to help maternal' recovery. In addition, mothers are not allowed to wash their hair and go outside afterward child birth following up to a month. Surprisingly, the photographs of the infant are not allowed may consider a superstitious (ChouDoufu, 2018).

Ayele1 *et al.* (2016), highlighted a number of factors that have a significant association with postpartum depression. Firstly, mother' first time pregnancy is an associative factor of postpartum depression. The other factor that increased the chances of depression was the pattern of treatment when women are not allowed to visit doctors during or after pregnancy. Obviously, visits to antenatal care services on regular bases played a crucial role in the maternal health and infant as well Subramanian *et al.* (2012). The continuous visit to basic health care units or doctors in getting proper counseling and medication might be a protective effect of depression. According to the study findings women who had visited to health care centers during pregnancy were 11-12 times at lower risk of depression. Whereas, social support in the antenatal and postpartum period had lower risk of postpartum depression, it might help the maternal to gain knowledge about complications while share their problems. In some cultures, maternal cannot understand the term depression due to lack of knowledge. So, they are unable to pursue help because of ignorance as well as culturally prescribed norms and expectations to fulfill their prohibited social roles with dignity and humble.

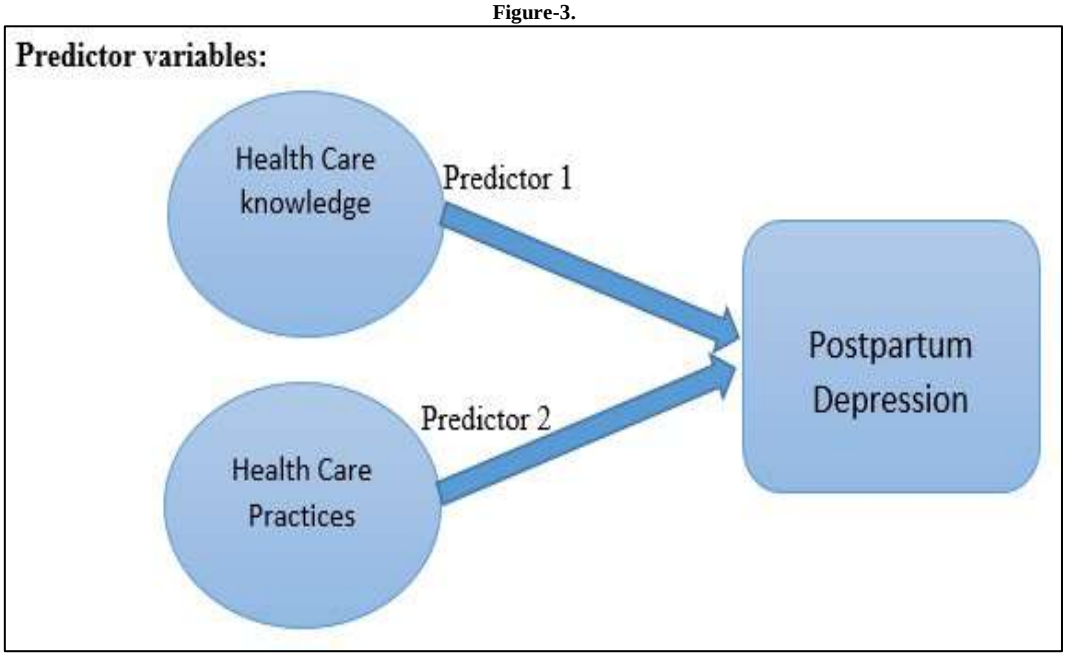
The low social status of Pakistani women set the limits to access economic resources and education. Due to these limits, their ability to make decision about health and nutrition is affected. The postpartum mothers of rural areas of Pakistan are highly pressurized to perform specific cultural practices. The compulsion of these practices increases the chances of low mood, anxiety and stress may leads to the postpartum depression. The purpose of the present study was: firstly, to examine the knowledge and attitude of health care practices and social experiences. Secondly, to measure the level of postpartum depression among women. In addition, the contribution of knowledge and attitude of health care practices in postpartum depression.

2. Materials and Methods

The present study aimed to examine the influence of maternal health care knowledge and practices on postpartum depression. The universe of the present study was the rural areas of Faisalabad District, Punjab, Pakistan. In this study, mothers having a child up to the age of one year was selected to collect the responses. The total number of rural towns is about 4 in Faisalabad District, all were selected to get maximum variation in the information. A sample of 400 mothers was selected through multistage sampling technique. Firstly, 4 union councils were selected randomly from each rural town. Secondly, 25 mothers were randomly picked from selected union councils. The responses were collected through a well-designed interviewing schedule.

Outcome variable: Postpartum depression: the maternal symptoms of postpartum depression was measured through applying the Edinburgh Postnatal Depression Scale (EPDS). This is a self-reported scale consisting of 10 questions. Each question has four-points ranging from 0 – 3. The selection of answers were based on respondent's feelings in the past 7 days. Normally, the score range of 10 - 30 are indicating the symptoms of postpartum depression in mild or moderately [19, 20, 21]. In this study, the level of postpartum depression was categorized into three levels: not depressed (0-9 score), minor depressed (10-12) and major depressed (13-30).

Figure-3.



Maternal health knowledge was evaluated based on the responses to the number of questions such as women who have knowledge of health services, antenatal and postpartum care, family planning, nutrition and postpartum depression. Maternal health care practices were assessed by utilization of health care services, birth place, antenatal or postpartum diet; vaccination and social taboos. The responses to these questions was dichotomized (0 = not at all, 1= to some extend and 2= to great extent).

Data analysis: The data was analyzed by using bivariate statistics. The value of chi-square was used to check the association between response and predictor variables. Whereas, negative and positive association was checked by applying the gamma value. The value of gamma varies from 0.0 to ±1; means no or weakest association (value of 0), direct/positive association (value of +1) and perfect/negative association (value of -1).

3. Results and Discussion

Following are the results of all Study Variables. (N = 400)

Table-1.

Association between maternal' socio-cultural characteristics and prevalence of postpartum depression				
Prevalence of PPD	**Socio-cultural characteristics**			**Total**
	Low	**Medium**	**High**	
Not depressed	70	60	27	157
	44.6%	38.2%	17.2%	100.0%
Minor depressed	21	42	17	80
	26.3%	52.5%	21.3%	100.0%
Major depressed	70	75	18	163
	42.9%	46.0%	11.0%	100.0%
Total	161	177	62	400
	40.3%	44.3%	15.5%	100.0%
Chi-square: 11.647 Sig. Level: 0.020		Gamma: -0.032 Sig. Level: 0.654		

The value of chi-square (11.647) showed a relationship between maternal' socio-cultural characteristics and prevalence of postpartum depression. The value of gamma (-0.032) indicated a negative relationship between these variables. The study found that as the educational level and family income increased, the symptoms of postpartum depression decreased. Education has a positive effect on maternal thinking and they can deal with their complications in a better way because of knowledge. Income of family regulate individual status influencing education, health and overall life style. In Pakistan, rural women tend to face more problems because of their low socio-economic status leads to poor health status (World Health Organization WHO, 2013). Maternal financial instability and lack of knowledge elevate the risks of low mood, anxiety and stress leads to the postpartum depression if undiagnosed (Pearlstein *et al*., 2009).

The culture of Pakistani society create obstacles to remain women unemployed and uneducated, whereas, joint family system is to be considered a leading cause of it Ronaq (2014). In joint or extended family system, maternal' daily routine activities and personal life experiences are controlled by family members specially mother-in-law. A mother can't eat something or care her baby independently, even her spouse shows emotional distress due to family

pressure. These factors are highly significant with low mood, anxiety and sadness considering highpoint of a strong predictor of postpartum depression Abdollahi *et al.* (2014).

Table-2.

Association between maternal' health care knowledge and prevalence of postpartum depression				
Prevalence of PPD	**Health care knowledge**			**Total**
	Low	**Medium**	**High**	
Not depressed	18	96	43	157
	11.5%	61.1%	27.4%	100.0%
Minor depressed	9	56	15	80
	11.3%	70.0%	18.8%	100.0%
Major depressed	38	112	13	163
	23.3%	68.7%	8.0%	100.0%
Total	65	264	71	400
	16.3%	66.0%	17.8%	100.0%
Chi-square: 26.419 Sig. Level: 0.000		Gamma: -0.384	Sig. Level: 0.000	

The value of chi-square (26.419) shows a relationship between maternal' health care knowledge and prevalence of postpartum depression. The value of gamma (-0.384) indicates a negative relationship between these variables. The study concluded that mothers who have more knowledge of pregnancy and delivery complications were less likely to be depressed in their postpartum period than those who have not knowledge. Women experienced low mood and anxiety when they didn't know how to treat maternal related health issues. They have no knowledge of antenatal and postpartum complications such as high/low blood pressure, anemia and postpartum hemorrhage (Corrigan *et al.*, 2015; Ugarriza *et al.*, 2007). Additionally, rural women are more prone to face barriers in getting knowledge of health care, where, cultural values set a tradition for mothers. The worst condition is for those women who are not allowed for checkup during pregnancy or after delivery by their husband or other family members (Groh, 2013).

The problem highly prevailed in rural areas, where it is often a major challenge in gaining knowledge of treatment as well as accessing health care. It resulted in, Pakistan's rank in the world is the third highest with the number of maternal deaths (GHETS, 2013; Ronaq, 2014). Women can adopt preventive measures of depressive symptoms with better understanding of their emotional distress. Furthermore, poor women are known to be associated with short birth interval, inadequate diet both in quality and quantity, lack of nutritional and health awareness. Valuable knowledge of nutrition, pregnancy/delivery complications and health awareness is only possible when women are allowed to get education (Beck, 2002).

Table-3.

Association between maternal' health care practices and prevalence of postpartum depression				
Prevalence of PPD	**Maternal' health care practices**			**Total**
	Low	**Medium**	**High**	
Not depressed	9	41	107	157
	5.7%	26.1%	68.2%	100.0%
Minor depressed	15	7	58	80
	18.8%	8.8%	72.5%	100.0%
Major depressed	49	56	58	163
	30.1%	34.4%	35.6%	100.0%
Total	73	104	223	400
	18.3%	26.0%	55.8%	100.0%
Chi-square: 59.734 Sig. Level: 0.000		Gamma: -0.455	Sig. Level: 0.000	

In the above table, the value of chi-square (59.734) indicated a strong relationship and value of gamma (-0.455) indicates a negative relationship between maternal' health care practices and symptoms of postpartum depression. The results highlight that better health care practices have a negative impact on maternal status of emotional distress. Visit to health care providers in the antenatal/postpartum period, birth place, utilization of family planning methods, antenatal/postnatal diet and vaccination were the factors considered as maternal health care practices (Fowles *et al.*, 2012). The symptoms of depression were higher for those mothers who didn't visit health care providers during pregnancy or afterward child birth. Financial constraints and cultural tradition of rural community influencing maternal health care decision and practices as well. Deliveries at home can cause of numerous complications for both maternal and infant including stillbirth, postpartum hemorrhage and physical disability of infant. All these complications occur due to untrained traditional birth attendant (Dai), indicating women' miserable condition and helplessness when can't handle with these complications. Other found that almost half percent of Pakistani rural women delivered their baby at home. Cultural constraint makes compulsion to deliver baby at home under unhygienic conditions (Batool, 2010). The present study also narrated that utilization of family planning methods

plays a vital role in maternal health. But most of women could not avail because of family and societal restrictions. Higher number of pregnancies and child birth is compulsion for a women. It resulted in, women are more prone to abortions, short birth interval, higher number of pregnancy and child birth (Sundaram *et al.*, 2014). Additionally, lack of awareness, traditional beliefs, family and religious restrictions, husband' dislikes, misconception of side effects and lack of availability of services are the reasons of low rate of use of contraceptive methods (Batool, 2010). These all the risk factors of poor health status of women leads to the postpartum depression.

Table-4.

Association between stereotype/social taboos and prevalence of postpartum depression				
Prevalence of PPD	**Social taboos/stereotypes**			**Total**
	Low	**Medium**	**High**	
Not depressed	41	62	54	157
	26.1%	39.5%	34.4%	100.0%
Minor depressed	23	38	19	80
	28.8%	47.5%	23.8%	100.0%
Major depressed	27	66	70	163
	16.6%	40.5%	42.9%	100.0%
Total	91	166	143	400
	22.8%	41.5%	35.8%	100.0%
Chi-square: 11.339 Sig. Level: 0.023		Gamma: 0.150 Sig. Level: 0.031		

Taboo means "marked off" a customary prohibition or set boundaries to a specific person, things place or to general use. Taboos may determine as an unrealistic action in certain societies. This phenomenon is strongly attached with traditional societies. These societies set conditions for women which create a contradiction in the continuity of their normal routines (Beck, 2002). The chi-square value (11.339) and gamma value (0.150) indicated a positive relationship between stereotypes and prevalence of postpartum depression. It means that mothers are more likely to develop depressive symptoms who are compel to perform particular practices, than those who didn't have restrictions at all. Maternal have to follow particular rules of food, care of new born baby, breastfeeding maintenance and medication. In the present study, the most frequent social taboos/stereotypes were: women didn't allow to go outside home at sunset in the antenatal period following to forty days of child birth or they can't meet a women whose baby is expired during pregnancy. There is requirement to eat specific thing against their will.

Traditional families believe that newborn baby are at higher risk of susceptible to supernatural things (sayya, jin), so put iron (lock or knife) or match stich nearby baby and didn't keep newborn's clothes beyond the forty days. The compulsion of these practices increased the levels of low mood, anxiety, mood swing and stress among postpartum mothers (Staneva *et al.*, 2015). Furthermore, mothers also have a strong myth and we're very confident to put the iron nearby the newborn because of better health. The stigma of a 'perfect mother' is assigned for those who experience such practices, and deviant if avoided. Even, her personal feelings didn't match with that practices (Hilten, 2015). Other, Hanlon *et al.* (2009), highlights that postpartum mothers and infant are more susceptible to supernatural attacks, believing sever illness or death occur because of avoiding to perform prescribed practices or violation of postpartum social taboos. This fear entailed restrictions how a mother should behave, use traditional medicine, even enforced to apply excessive butter on head. Furthermore, reinforcement of care practices could be threat to mental health by increasing the level of anxiety and depression.

4. Conclusion

Cultural pattern of Pakistani society influences on several aspects related to maternal health care and practices. The probability is higher for rural women where, maternal' life is totally depend on family in terms of receiving health care. A complex relationship network is created for both mother and infant by providing instructions of self-care and baby. Postpartum mothers have to follow rules of breastfeeding maintenance, relation with spouse and so on. Women are also required to eat specific foods; and there are restrictions to perform some practices during pregnancy and within the forty days subsequently childbirth. The compulsion of these practices without mother's determination elevate the chances of anxiety, poor concentration and stress. Mothers are more prone to develop postpartum depressive symptoms when not bothering on these problems and remain untreated. The study concluded that there is a strong connection between maternal postpartum depressive symptoms and lack of knowledge of antenatal and postpartum care and in addition with health care practices. It is recommended that mothers should be allowed to visit to health care professionals or at least lady health workers when they feel weak, fatigue, anxiety, dizziness or loss of concentration after child birth. Furthermore, health care is the basic right of every women, so it's a social responsibility of women to take care of themselves. In addition, Pakistani women can improve their health by seeking out knowledge of health care and how to deal with complications.

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