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DEPARTMENT OF PSYCHOLOGY

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RELATIONSHIP BETWEEN POSTPARTUM DEPRESSION, PARENTAL STRESS AND PERCEIVED SOCIAL SUPPORT AMONG FEMALES

by

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CERTIFICATE OF APPROVAL

It is certified that the Research Thesis titled "Relationship between Postpartum Depression, Parental Stress and Perceived Social Support among females" carried out by Eman Nasir, Reg. No. BSP193043, under the supervision of Ms. Sadaf Zeb, Capital University of Science & Technology, Islamabad, is fully adequate, in scope and in quality, as a Research Thesis for the degree of BS Psychology.

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Relationship between Postpartum Depression, Parental Stress and Perceived Social Support among females

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It is declared that this is an original piece of my own work, except where otherwise acknowledged in text and references. This work has not been submitted in any form for another degree or diploma at any university or other institution for tertiary education and shall not be submitted by me in future for obtaining any degree from this or any other University or Institution.

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ABSTRACT

Postpartum depression has been associated with parental stress in mothers, but has rarely been assessed. The current study was design to examine the relationship of postpartum depression, parental stress and perceived social support among females. Data was collected through a survey method by purposive sampling. 251 females with an age range 18-45 years were taken from different hospitals of Rawalpindi and Islamabad. The scales used for this purpose were Edinburgh Postnatal Depression, Parental Stress Scale and Multidimensional Measure of Perceived Social Support. The findings revealed positive relationship between postpartum depression and parental stress and negative relationship between perceived social support with parental stress and postpartum depression. The current study can help healthcare practitioners, psychologists and counselors dealing with postpartum depression and parental stress for mothers.

Keywords: Postpartum Depression, Parental Stress, Perceived Social Support

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Chapter 1

Introduction

Parenthood transition is a significant family event. During this time, mothers and fathers frequently go through significant biological, psychological, monetary and social changes, which might raise the risk of postpartum depression (Gao et al., 2015). Mothers are typically the primary caretakers, and motherhood is often linked to a higher number of changes in their life than fatherhood (Tuebert et al., 2010). Parenting stress reduces a parent's ability to engage in beneficial parenting activities, which has a negative impact on child development. Another study discovered that in mother-toddler dyads, parenting stress was a more powerful predictor of parental behavior and child development than depressive symptoms (Whittaker et al., 2011).

Depression has a negative impact on people's behavior, cognition, and emotions, as well as their overall quality of life (Tanaka et al., 2015). Depression not only has an impact on an individual's daily functioning, such as changes in weight and sleep habits, a gloomy mood, and a loss of interest or enjoyment; it can also lead to suicidal thinking (Lester et al., 2014). Furthermore, it exacerbates family conflict over roles, problem-solving capacity, emotional response, and communication among family members (Wang et al., 2013).

Being a parent is a life-changing experience. It is a point of no return that necessitates parental adaptation and development to cope with the new role. The majority of studies on the relationship between postpartum depression (PPD) and parenting stress focus on the first two years after birth. We already know that maternal PPD raises the risk of recurrent depression and has long-term consequences for child development (Halligan et al., 2007). Postpartum depression is a severe mental health problem which affects the social, mental and physical wellbeing of

mothers, their off springs, families and communities. It also affects the new infants as mother is unable to respond to their child's need. In this condition, the level of mother's care for their infants reduces as compare to non-postpartum mothers (Ngai & Lam, 2020). Social support is an individuals' subjective assessment that they will be able to receive the desired support and help in their time of need from surrounding social networks such as their spouse, relatives, friends, coworkers, or a community that benefits the individuals' physical and psychological health is referred to as social support (Taylor et al., 2011). Social support is important for new mothers' well-being. Women who didn't get any social support were more likely to suffer from PPD (Nunes et al., 2013).

Postpartum Depression

Postpartum depression is a part of major depressive disorder occurring 4 to 6 weeks following the childbirth. It is defined as an episode of major depressive disorder that occurs in the post-partum period (O'Hara & McCabe, 2013). Within a year of giving birth, 10% to 20% of women develop depression, and 25% of these women have depressed symptoms that last longer than a year (Falana & Carrington, 2019). The long term and severe harmful impact of maternal postpartum depression on children has been widely documented (Goodman et al., 2011).

PPD is more prevalent in resource-constrained countries than in developed countries. In Pakistan, the prevalence of postpartum depression ranges from 28% to 63% (Shaikh et al., 2013). Mothers suffering from postpartum depression cannot adequately care for themselves or their infants to care for themselves or their infants adequately. This creates an unfavorable atmosphere for the moms' and their newborn babies' personal development. It severely affects infant-mother attachment, resulting in child neglect, and emotional or physical child abuse. Previous research has linked

untreated postpartum depression to weight gain, substance addiction, domestic troubles, and later nursing difficulties later in life (Bhusal et al., 2016).

Higher maternal symptoms, for example, have been associated with lower newborn weight as well as increased baby physical health and sleep difficulties (Howe et al., 2012). Furthermore, PPD in the mother may have an impact on newborn intellectual growth, including speech and Intelligence, as well as various aspects of behavioral performance (Grace et al., 2003). However, there is substantial evidence that with effective treatment, the symptoms of depression can be greatly reduced or prevented. According to a recent study of the severity of postpartum depression, the occurrence of postpartum depression in prosperous countries varies from 1.9% to 82.1% and from 5.2% to 74.0% in underdeveloped countries (Emilin et al., 2015).

Severe mood fluctuations, loss of interests, disturbed sleep, excessive crying, feelings of melancholy, irritability, appetite loss, difficulty managing stress with day-to-day tasks and thoughts of harming one-self and the baby (Cantwell et al., 2011). Some women feel as if they are losing control of their lives, which can lead to emotions of increased rage, panic attacks, and tantrums (Norhayati et al., 2015). Postpartum depression that is left untreated appears to have detrimental effects on both mothers and infants. According to research, postpartum depression is the most accurate indicator of parental stress (Leigh & Milgrom, 2008).

Parental Stress

Raising children provides parents joy and fulfillment. However, after the birth of a kid, parents face a slew of new obstacles. As a result, raising children causes stress and necessitates that parents make many lifestyle changes and assume new responsibilities (Zelman et al., 2018). They face issues such as fear about the future, a

lack of parenting skills, difficulty with the well-being of their kid's jobs, social stigma and prejudice, and financial difficulties (Werner et al., 2015).

Parental stress is characterized as an unpleasant psychological reaction to the challenges of being a parent, and it can also influence parental involvement as well as the quality of the dyadic parent-child interaction (Keane et al., 2009). Being a parent is difficult enough, but being impacted by postpartum depression adds additional stress to the parents and family, affecting the mother and their parenting (Hoffman & Dunn, 2017).

Anding et al. (2016) discovered that perceived parental stress was the most significant predictor of depressive symptoms in parents at 2 weeks postpartum; Kamalifard et al. (2014) discovered that perceived stress in fathers at 6 weeks postpartum was a predictor of paternal postpartum depression at 12 weeks. Parenting stress can be related to how men and mothers perceive their parental roles, how challenging the newborn is, and the quality of parent-child interactions. Stress in the parental domain has been connected to depressive symptoms, although findings in the child and parent-child domains are inconsistent (Thomason et al., 2014).

Neece and Baker (2008) discovered that children's behavioral issues are an efficient predictor of parenting stress in longitudinal research. Special needs children, such as those with intellectual disability (Chan & Lam, 2017) and autism (Kim et al., 2016), have more behavioral issues than typically developing children, which may cause additional parental stress for their parents. Skreden et al. (2012) discovered that parents' anxiety was connected to their parental stress in a study on preschool children.

According to studies on postpartum depression and parental stress, parents’ experience the same types of mood changes, as their transition to parenthood, their

mental health and health of their children are significantly impacted (Stein et al., 2005). When you believe you simply cannot handle being a mother, you experience parental stress (Holly et al., 2019).

Parental discontent, poor child sleep, lower income level, and a lack of assistance are all associated with increased parental stress among mothers (Sepa et al., 2004). If a woman suffers from postpartum depression, the child's development suffers in terms of behavior, cognitive development and physical health. According to O'Hara and McCabe (2013), the degree of duration of a child's exposure to his or her mother's depression has a crucial influence on predicting future issues.

Possible health issues stem primarily from a depressed mother's diminished capacity to care for her child. Protective factors, such as a competent father or a supportive social environment, can offset the unfavorable impact on the child's development (Hanington, 2010). Furthermore, according to studies, mothers' self-reported depressive symptoms are associated with lower academic success and physical aggression in children aged 4 to 5, anxiety and fear problems in children aged 10 to 11, and a higher likelihood of depression in children aged 16 to 18 (Pearson et al., 2013).

According to two Swedish researches, parents feel stress in different regions during early parenthood, with females experiencing higher levels of stress and in more areas than males (Hildingsson & Thomas, 2014). Stressors related to situational circumstances, such as partner relationships, feelings of social isolation, parental health, and emotions of restrictions in the parenting role, all contribute to parent related stress (Woodman, 2015).

Parents who are under stress may be less receptive, more dictatorial and neglectful in their parenting (Ponnet et al., 2013). Furthermore, their inability to

complete parenting activities can have an effect on the parent's physiological and cognitive performance, which, when paired with behavioral changes, may make it difficult for them to carry out their parental responsibilities properly (Powers et al., 2013). Affordability of childcare services, daily taking care of a child's hassles such as feeding and sleeping problems, crying and illness, child temperamental challenges, and managing work-family demands have all been linked to an increased risk of depressive symptoms in parents (Manuel et al., 2012).

A big and difficult life event that can be accompanied by a great deal of grief is the transition to parenting. Parents of newborns reports having concern about their parenting abilities and feeling overburdened by the countless expectations that come with the parenting position. Parental distress negatively affects the quality of parenting and wellbeing of children. Parental stress manifests as bad emotions toward oneself as a parent and toward one's children and these negative emotions are purely a result of the demands of parenthood (Deater-Deckard, 2010). According to the research on parental stress, parents who are under a lot of pressure tend to be less affectionate and sensitive to their kids (Snyder et al., 2009).

Perceived Social Support

Social support has drawn a lot of attention as one of the many elements that reduce parental stress and improve parents' well-being (Östberg & Hagekull, 2000). Social support, both perceived and actual, is vital to the aspect of maintaining mental health throughout one's life. The nature of support has been identified as an essential factor in perceived social support (Zimet et al., 1988). The emotional experience and satisfaction that people feel respected, supported, and understood in society is referred to as perceived social support. Through the psychological reality of the subjective sense of support, perceived social support influences people's behavior and

development and is more likely to have a positive effect on a person's mental health. Stress and mental health are buffered by perceived social support. People can benefit from the help of family, friends, or neighbors in lowering stress levels or addressing problem (Zhou et al., 2013).

Parenting is likely to enhance with increased social support (DeGarmo et al., 2008). According to Gage and Christensen (1991), level of social support perceived by moms is critical in reducing stress. Furthermore, Levy-Shiff (1998) found that women who felt more social support were less angry with their mother's capacity. Parents that have a significant amount of social support have reduced parental stress, which leads to more pleasant and effective parenting, according to Ostberg and Hagekull (2000). There is some disagreement over whether a support network has a significant impact on parenting behavior or acts as a buffer against factors that influence parenting behavior (Zimet et al., 1988). It is believed that parents who lack parenting experience, self-confidence, and support would find parenting to be more stressful. More specifically, parents who receive a lot of social support feel less stressed about parenting, while parents who receive less social support feel more stressed. It has been demonstrated that parents who experience depression and lack of social support are more prone to see their child as fragile (Gordon et al., 2016).

A significant risk factor for PPD is a low amount of social support. Another important source of support for postpartum mothers is the mother-in-law. Postpartum depression has been connected to a lack of social assistance from the mother-in-law all over the world (Chou et al., 2016). Conflicts over baby care details lifestyle disparities between a female and her mother-in-law, and undue intervention from the mother-in-law all contribute to poor moods among postpartum women (Liu et al., 2019).

Social support, in particular, can effectively regulate an individual's behavior, assisting them in avoiding harmful behaviors, forming healthy living behaviors, maintaining a positive life attitude, and providing predictability, consistency and self-control. Social support is the assistance that a person receives from others as well as from virtual communities (Lu et al., 2015). It might be physical or material assistance, or emotional or psychological support (Lei et al., 2020).

According to the buffering concept, social support acts as a moderator, lowering unpleasant emotions induced by stressful experiences (Cohen et al., 1985). As a result, it is known as a coping resource for dealing with stress and adapting to new settings (Seo et al., 2006). Individuals who endured stress, in particular, experienced less depression if they received appropriate social support (Yang et al., 2019). Histories of psychiatric illness, psychological disturbance during pregnancy, domestic abuse or poor marital connection, and insufficient social support have all been linked to an increased risk of postpartum depression. Low socioeconomic levels and lack of availability of healthcare facilities are also important variables in determining mother and fetal outcomes (Halbreich et al., 2006). Social support plays an important protective role in the treatment of psychological distress. In the postnatal phase, both professional and informal assistance from a partner, friends, and family are essential (Reid et al., 2015).

Literature Review

According to a recent study of the intensity of PPD, the occurrence of PPD in developed countries ranges from 82.1% to 74.0% (Emilin et al., 2015). A study was directed to investigate the predictors of postpartum depression among parents in early postnatal period. Researchers found out that PPD is a serious mental health concern that later on affects their children and their families. Screening of postpartum depression should be done for both parents rather than females. The psychological well-being of the parents was linked to and affected by one another (Zheng et al., 2022).

Another study examines how factors like parental stress, sleep quality, self-compassion and family relationships affected postpartum depression in women. This study was conducted on Korean women suffering from postpartum depression. Results indicates parenting stress and sleep quality were positively related with postpartum depression (Oh & Kim, 2022).

Postpartum Depression and Social Support

The research examined the occurrence of postpartum depression as well as its relationship with social support in 200 new mothers in Iran. This study discovered that PPD is common in hospitalized women and that social support, regardless of other predictors, is a contributing cause of PPD. According to the study findings, they advocate monitoring women for PPD in order to have a possibility of treatment; second, expanding the social assistance and security system, specifically for people who have possible predictors such as depression; and third, enhancing the learning environment for couples and parents in order to advance social support (Vaezi et al., 2019).

The previous studies were focused on biological causes of postpartum depression. Biological cause mainly includes the hormonal changes during and after pregnancy. This study focused on the consequences of maternal depression. Systematic analysis of maternal PPD was carried out. Total of 122 studies were included to investigate the consequences of untreated maternal postpartum depression and results indicated the effects of PPD on women psychological health, quality of life and interactions with their child, partner, and family members are significant (Bruyere & Honvo, 2019).

Similarly, a study was conducted to investigate the current status and possible identification using biomarkers for postpartum depression. Numerous risk factors, such as biological, psychological, and environmental factors are likely to have an impact on PPD. Results indicated that psychotherapy, pharmacotherapy and anti-depressants are the common therapies for PPD. In early researches, a number of hormones, neurosteroids and biochemicals have been suggested as potential biomarkers for PPD prediction. Postpartum depression is a major health problem for new mothers that affect both mothers and the kids negatively (Han et al., 2021).

In previous studies, researcher also quantitatively associates the postpartum depression and social support. A qualitative study was conducted on parents lived experiences of postpartum depression and parental stress after childbirth. According to the results parental stress, postpartum depression, and depressive symptoms all significantly affect how parents live their daily lives. There was significance of medical personnel being able to recognize and assist those parents who have issues. The need for enhanced care and support for expecting and new mothers is highlighted by Sweden’s decrease in the length of postpartum hospital stays (Johansson et al., 2020).

Similarly, a study was conducted to investigate the association of postpartum depression and quality of sleep in Pakistani females. The finding suggests sleep problems usually improve throughout the postpartum period. However, the prevalence of depression was significant, and poor sleep quality was seen. The significant relationship between depression and poor sleep quality suggests early identification of depression and support for women at greater risk of poor quality of sleep. Women should be aware of the possibility of decline in sleep patterns and measures for preventing sleep disorders (Zia et al., 2022).

Postpartum Depression and Parental Stress

Additionally, when individuals were aware about the prevalence and effects of postpartum depression through the meta-analysis of various studies. Another study was conducted on 138 pregnant women and 36 partners to see the effectiveness of psycho-education to prevent from postpartum depression and parental stress. After the psycho-education, participants show a greater reduction in parental distress. Intensive forms of intervention are required in order to promote parental well-being and caring quality. For the health and development of both parents and children, finding effective early intervention strategies are crucial, ideally even during pregnancy (Denissen et al., 2020).

Further, a study conducted on the association of PPD and mother's stress in early parenthood. This study discovered a link between mother and father depressive symptoms and parental stress during early parenthood. However, the stress of the parent certainly impacts the relationship, and this understanding is vital for both health professionals and parents. This understanding can help health practitioners prevent and recognize depressive symptoms and parental stress, as well as devise

therapies. To optimize the conditions for raising the child, parents should get assistance and advice (Nohlert et al., 2016).

Moreover, a study on parental depressive symptoms and poor attachment with the infant was undertaken. Even after controlling for confounders, depression symptoms in both parents around 6 weeks are associated with lower baby attachment at 6 months. Depressive symptoms in both mothers and fathers are usually associated. Mental illness is becoming more frequent in many cultures, emphasizing the importance of early recognition and treatment of symptoms of depression in both parents in order to reduce suffering for both parents and children (Tillman et al., 2015).

Parental Stress and Social Support

In addition to this, a meta-analysis was carried out on parenting stress and the social support and the quality of life of parents. This research found that parenting stress has a strong partial impact on the connection between social support and quality of life. The analysis showed that parenting stress had a much stronger predictive influence on quality of life in western culture, while social support had a significantly stronger predictive effect in Eastern culture. More social support can help parents cope more constructively and successfully by reducing stress and improving their quality of life (Wang et al., 2022).

In addition to earlier research, a study was conducted to examine parental mental distress and child maladjustment, as well as the influence of sibling relationships. The data indicate that both mother and paternal mental distress are important predictors of children's social and emotional maladjustment. According to studies, children of anxious parents have a lower probability of social-emotional

dysfunction when they have highly positive interactions with their siblings (Turgeon & Bureau, 2022).

Theoretical Framework

To comprehend a depressive's symptoms and parental stress, a diathesis-stress perspective for a vulnerability or predisposition that might take the shape of genetic, psychological, biological, or situational elements is helpful (Ingram & Luxton, 2005).

Diathesis Stress Paradigm

The diathesis-stress model takes into account the link between potential causes of depression and the degree to which persons are prone to such causes. According to the diathesis-stress paradigm, persons have varying degrees of sensitivity and a tendency to develop depression. According to Bowlby (1988), diathesis can be a predisposition factor or a combination of factors that allow a disordered condition to occur, and diathesis-stress occurs in stressful interpersonal contexts. The way someone reacts to a stressful event or scenario is determined by their previous attachment style and history.

The diathesis-stress paradigm interacts with the subsequent stress reaction of the individual. Stress can be a single event or a series of events in a person's life that disrupts their psychological equilibrium and may precipitate the development of a condition. As a result, the diathesis-stress model is used to investigate how biological or genetic features interact with environmental variables to cause diseases like depression, anxiety, or schizophrenia (Oatley et al., 2006). According to the diathesis-stress paradigm, if the combination of predisposition and stress surpasses a certain threshold, the person will develop a condition (Lazarus, 1993).

Bowlby (1977) asserted that increases in depressive symptoms arise primarily when vulnerable people with insecure attachment styles are exposed to stresses that put their attachment styles to the test and put a strain on their relationships. Such events can exacerbate depression symptoms by reinforcing negative ideas about oneself as undeserving of love and support, or by highlighting negative beliefs about others as unloving and unsupportive partners (Johansson, 2019).

Rationale

The association of postpartum depression, parental stress and social support is a crucial topic for understanding the mental health and consequences of postpartum depression and promoting the health and well-being of mothers and their children. Within a year of giving birth, 10% to 20% of women develop depression, and 25% of these women have depressed symptoms that last longer than a year (Falana & Carrington, 2019). Postpartum depression can have serious consequences for the mother's and her family's overall health and well-being. It is linked to a higher risk of maternal and infant mortality, poor infant development, and a lower quality of life. Parental stress is frequent among new parents and can contribute to postpartum depression. Social support is vital in assisting new mothers in coping with the challenges of parenting and lowering the chance of developing postpartum depression (Gordon et al., 2016).

Literature revealed that people who were suffering from postpartum depression have low affection towards their children. This study will examine the underlying association of postpartum depression, parental stress and social support. From current study we can also investigate the ratio and tendency of postpartum depression in Pakistan. This study will help to determine the role of social support in postpartum depression and parental stress. Current study will also determine that how

untreated postpartum depression will have detrimental effect on child and the mother due to lack of social support. In Pakistan there is a dearth of research in this area. So, this study will also fulfill the existing gaps (Bruyere & Honvo, 2019; Johansson et al., 2020).

Postpartum depression is a significant mental health concern affecting many women worldwide, affecting maternal well-being, infant development, and family dynamics. Understanding the factors contributing to postpartum depression is crucial for early identification and intervention (O'Hara & McCabe, 2013). Parental stress, a multidimensional construct, can lead to negative outcomes such as impaired parenting efficacy and compromised child development. Perceived social support, on the other hand, plays a critical role in buffering stress and promoting psychological well-being. Access to emotional, informational, and tangible support from family, friends, and healthcare professionals can enhance coping mechanisms and reduce the risk of postpartum depression (Lu et al., 2015). Understanding the dynamics of these relationships is crucial for developing comprehensive interventions that address both parental stress and social support to prevent and treat postpartum depression effectively. This research aims to contribute to the existing knowledge base, inform clinical practice, and improve the well-being of women and their families.

Present study will help us understand the association between postpartum depression, parental stress and social support for new mothers. Understanding the impact of social support on postpartum depression is critical for developing culturally relevant therapies to improve maternal health and well-being. Additionally, this study could help to inform public health policy and practice regarding postpartum depression and other maternal mental health concerns in order to provide better health care to new mothers and their children, as well as screen mothers who are at risk of

developing postpartum depression. Furthermore, this study can also assist healthcare providers and social networks in better addressing the needs of new mothers and providing them with the resources they require to cope with the physical and mental health stresses that come with being mother.

Objectives

1. To find the relationship between postpartum depression, parental stress and perceived social support among females.
2. To find the demographic variable family structure with study variables between postpartum depression, parental stress and perceived social support among females.

Hypotheses

1. There will be association of postpartum depression and parental stress among females.
2. There will be a relation of social support and parental stress among females.
3. There will be a relation of social support and postpartum depression among females.
4. There will be a significant difference of family structure between postpartum depression, parental stress and perceived social support among females.

Chapter 2

Methods

Research Design

The research design of current study is cross-sectional, correlational and quantitative in nature.

Sample

Sample is calculated through G-power. A minimum sample size is 173, but for better results the sample size of this study is 251. Sample includes participants having age range between 18 to 45 years, belonging to the middle socioeconomic status.

Inclusion Criteria

Mothers who had experienced parental stress and depressive symptoms in postpartum period ranging from 4 weeks to 3 years. Married females who have children and age range from 18 to 45 years are included. Females who have received an education are also included.

Exclusion Criteria

Females with other mental illness and physical disability were excluded from the study.

Sampling Technique

The sampling technique for current study is purposive sampling.

Measures

Edinburgh Postnatal Depression (EPDS)

It was created by John Cox (1987) to measure maternal depression. There are a total of 10 items. The total score range for this scale is 0 to 30. Each item uses a 4-point Likert scale, which is counted as 0-3 points. Postpartum depression symptoms

are regarded to be present when the overall score is greater than 9, with a higher score suggesting more severe depression. Cronbach's alpha was 0.91 (Cox, 1987).

Multidimensional measure of perceived social support (MSPSS)

It was created by Zimet Gregory (1988) to assess perceived social support, putting particular emphasis on how each individual views their own level of perceived social support. The scale consists of 12 items. The scale was graded on a 7-point Likert scale. A higher score denotes a greater understanding of the perception of social support (from "strongly disagree" to "strongly agree"). The sum of the values for each item determines the final score. A higher score denotes more perceived social support; the overall score range is between 12 and 84. Cronbach's alpha was 0.92 (Gregory, 1988).

Parental Stress Scale (PSS)

It was created by Berry and Jones (1995) to measure the parental stress. An 18-item self-report survey on the positive and negative perception of parenthood. Items are scored on a 5-point scale. Higher scores indicate more parental stress. When their subjective load was the highest, parents were asked to rate their level of stress. Cronbach's alpha was 0.90 (Berry & Jones, 1995).

Procedure

Permission was taken from the authors for the use of instruments. For this research, 251 participants were taken from the age of 18 to 45. The sample was taken through purposive sampling and this research used a correlation research design. Data was collected from the hospitals of Islamabad and Rawalpindi through prescribed questionnaires.

It was communicated to the individuals that their participation in this study would be completely voluntary. Obtained information would be kept confidential and used for only research purposes. After their endorsement, they filled consent form and demographic information sheet. The Edinburgh Postnatal Depression Scale (EPDS), Parental Stress Scale (PSS) and Multidimensional Scale of Perceived Social Support (MSPSS) were used to evaluate the variables. Participants were instructed to choose the best suitable option describing their problem. If they find any difficulty regarding words/statements they could ask for guidance. They were told that there is no right or wrong answers so they have to give responses on all the items. No time limit was given for the completion of the questionnaires.

Ethical Considerations

Current study is reviewed from the ethical committee of Capital University of Science and Technology. All participants are informed about the study aims and procedures, and written consent is taken from participants. This study assures confidentiality, anonymity and protection of participants from harm. Participation is voluntary and participants have right to withdraw study at any time.

Data Analysis Procedures

Data analysis is done through Statistical Package for Social Sciences (SPSS) version 26. Analysis includes descriptive analysis and correlation and Mann Whitney U Test.

Chapter 3

Results

In this chapter, results of the current study were presented in form of frequencies and percentages of demographic variables, descriptive statistics, alpha reliabilities and correlation between variables. The purpose of this study is to find the relationship between postpartum depression, parental stress and perceived social support among females. As the distribution was non-normal, non-parametric tests conducted such as Spearman Correlation and Mann Whitney U Test.

Table 1

Socio-demographic Characteristics of Participants (N=251)

Characteristics	n	%	M	SD
Age	-	-	29.4	4.75
Level of education				
Matric	38	15.1		
Intermediate	88	35.1		
Bachelor	125	49.8		
Marital status				
Married	247	98.4		
Divorced	3	1.2		
Separated	1	0.4		
Number of children				
1	74	29.5		
2	92	36.7		
3	71	28.3		
4	10	4.0		
5	4	1.6		
Family structure				
Joint	160	63.7		
Nuclear	91	36.3		
Socioeconomic status				
Lower	3	1.2		
Middle	236	94.0		
Upper	12	4.8		
Spoken language				
Urdu	244	97.2		
English	1	0.4		
Other	6	2.4		
Religion				
Islam	251	100		
Christianity				
Other				
Ethnicity				
Punjabi	215	85.7		
Kashmiri	9	3.6		
Pakhtun	26	10.4		
Sindhi	1	0.4		

Note. n is frequency and % is percentage.

Table 1 shows that majority of the females were educated up to bachelors (n=125, 49.8%) participated in this study. There were married females (n=247, 98.4%), divorced (n=3, 1.2%) and separated (n=1, 0.4%). Maximum women belongs to joint family system (n=160, 63.7%) as compared to nuclear family (n=91, 36.3%).

As far socio-economic status most of the females belongs to middle (n=236, 96%), as compared to lower (n=3, 1.2%) and upper (n=12, 4.8%). Similarly, for ethnicity majority of the females were from Punjab (n=215, 85.7%), in comparison to Kashmiri (n=9, 3.6%), Pakhtun (n=26, 10.4%) and Sindhi (n=1, 0.4%).

Table 2

Psychometric Properties of Scales

Scales	N	M	SD	α	Range	
					Actual	Potential
EPDS	10	17.31	4.99	0.67	8 – 28	0 – 40
PSS	18	41.92	7.26	0.71	23 – 61	18 – 90
MSPSS	12	5.26	0.87	0.79	2 – 7	0 – 84

Note. EPDS stands for Edinburgh Postpartum Depression Scale, PSS stands for Parental Stress Scale and MSPSS stands for Multidimensional Scale of Perceived Social Support. The n is number of items, M is mean, SD is standard deviation and α is reliability.

Table 2 shows psychometric properties for the scales used in present study. The Cronbach's α value is (α = 0.67). Similarly, the Cronbach's α value of PSS is (α = 0.71) which also shows high internal consistency and the Cronbach's α value is (α = 0.79) which shows high internal consistency.

Table 3

Psychometric Properties of Scales

Scales	M	Median	SD	Skewness	Kurtosis	KS	*P*
EPDS	17.31	17.0	4.99	0.11	-1.0	0.10	0.000
PSS	41.92	42.0	7.26	0.00	0.40	0.08	0.000
MSPSS	5.26	5.33	0.87	-0.42	0.23	0.07	0.002

Note. EPDS stands for Edinburgh Postpartum Depression Scale, PSS stands for Parental Stress Scale and MSPSS stands for Multidimensional Scale of Perceived Social Support. The n is number of items, M is mean, SD is standard deviation, KS is Kolmogorov Smirnov and P is significance.

Table 3 represents the descriptive statistic of EPDS, PSS and MSPSS. EPDS shows (M = 17.31, SD = 4.99), PSS shows (M = 41.92, SD = 7.26) and MSPSS shows (M = 5.26, SD = 0.87). KS value shows non-normal distribution ($p > 0.05$) for scales.

Distribution curve

Histograms showing the distribution curves for Edinburgh Postnatal Depression Scale, Parental Stress Scale and Multidimensional Scale of Perceived Social Support (N = 251) are represented below.

Figure 1- ***Distribution of scores for Postpartum Depression***

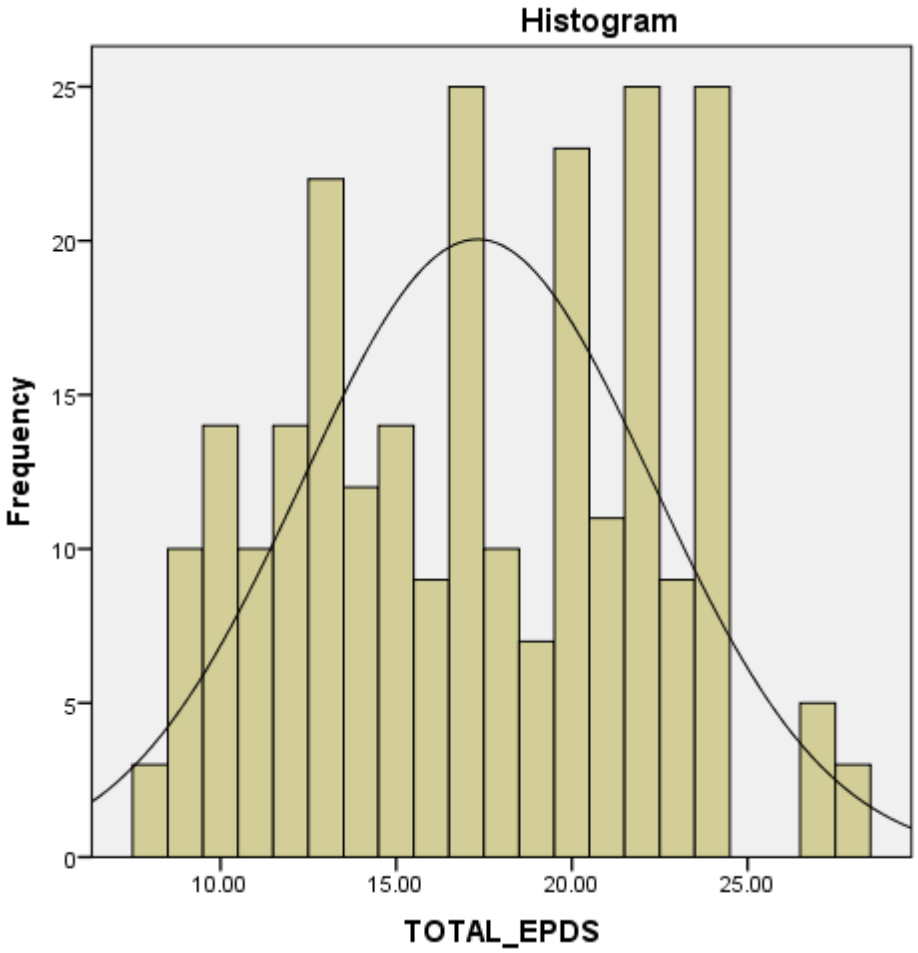

Figure 2 - ***Distribution of scores for Parental Stress Scale***

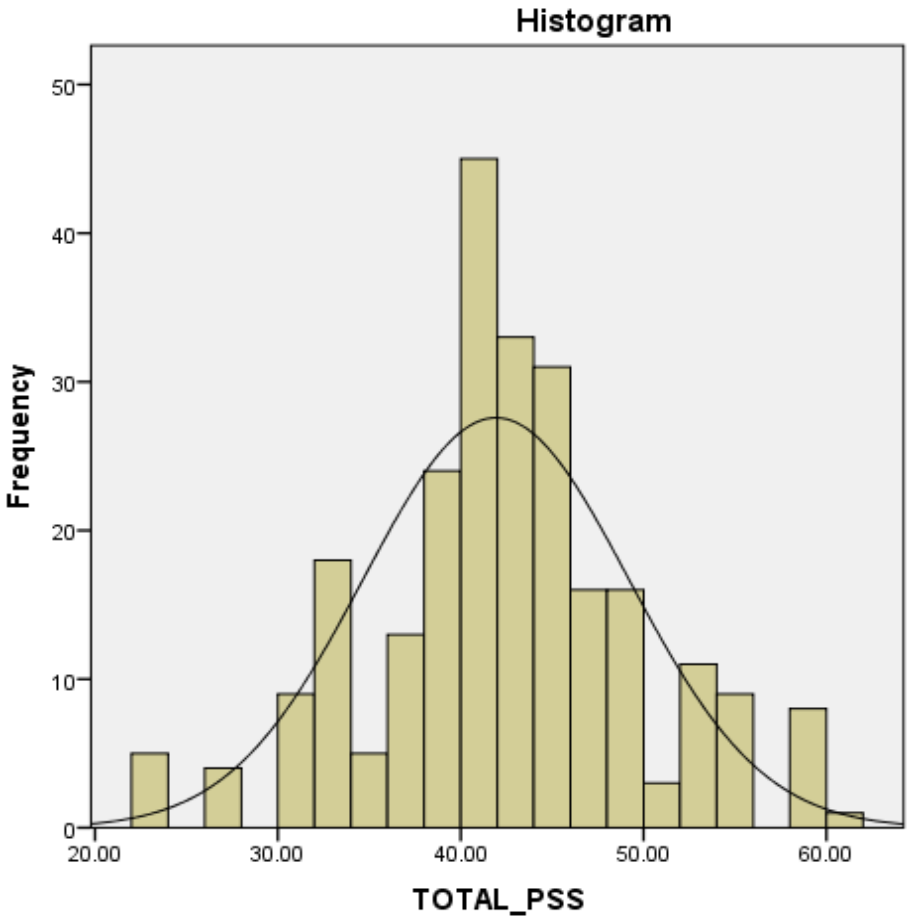

Figure 3 - ***Distribution of scores for Multidimensional Scale of Perceived Social Support***

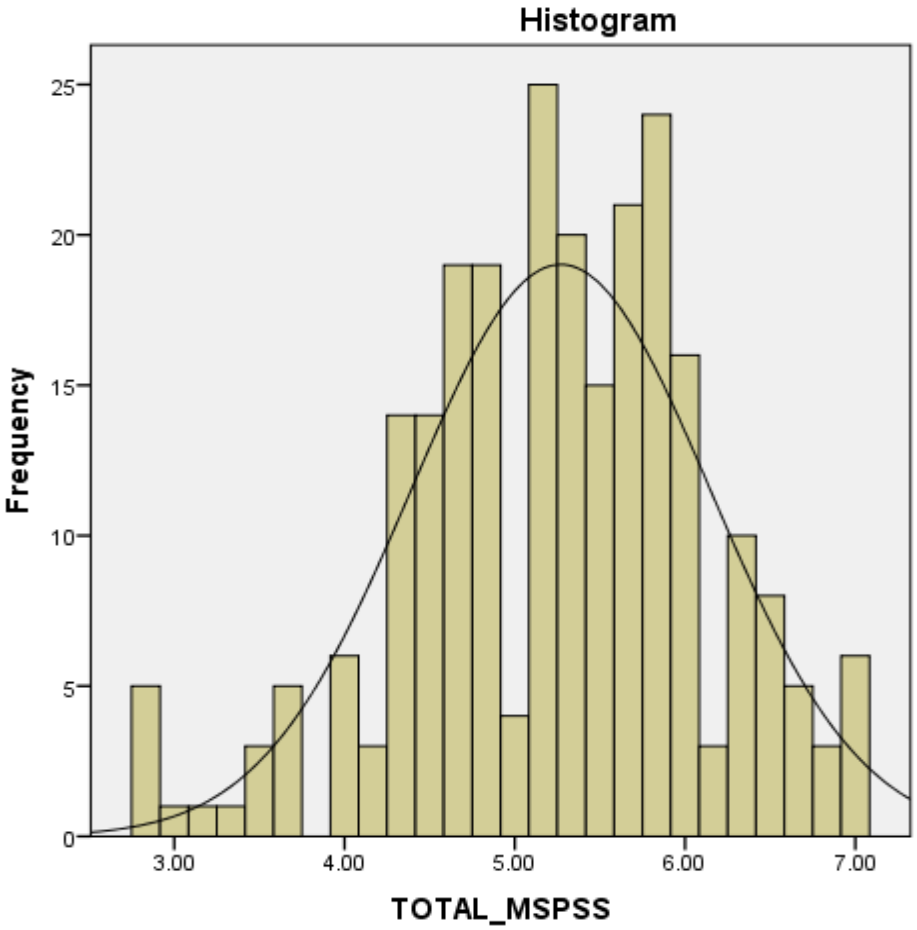

Table 4

Descriptive statistic and correlation for EPDS, PSS and MSPSS

Variables	n	1	2	3
EPDS	251	_		
PSS	251	0.33**	_	
MSPSS	251	-0.20**	-0.06**	_

*Note. **Correlation is significant at 0.01 level (2- tailed)*

Table 4 shows that postpartum depression has a positive correlation with parental stress (r = 0.33, $p < .01$). It means that females who are suffering from postpartum depression have a greater tendency of suffering from parental stress. Perceived Social Support has a negative correlation with postpartum depression (r = -0.20, $p < .01$) and has a negative correlation with parental stress (r = -0.06, $p < .01$). This shows females who have higher social support will less likely to suffer from postpartum depression and parental stress.

Table 5

Mann Whitney U test along with family structure (N = 251)

Variables	Joint		Nuclear		U	P
	N	M	N	M		
EPDS	160	128.3	91	121.9	6908.000	0.50
PSS	160	129.3	91	120.1	11094.000	0.33
MSPSS	160	121.3	91	134.2	6533.000	0.17

Note. N is number of participants, M is mean rank, U is Mann Whitney and P is significance value.

Table 5 revealed that all the p-values are greater than the conventional significance level of 0.05. The p value of EPDS is (p = 0.50), p value of PSS is (p = 0.33), and the p value of MSPSS is (p = 0.17) so we would fail to reject the null hypothesis. This means that there is not enough evidence to conclude that there is a significant difference between the groups for any of the variables (EPDS, PSS, and MSPSS).

Therefore, based on the Mann-Whitney U test results, we do not have sufficient evidence to suggest that there is a statistically significant difference between the groups in terms of their scores on EPDS, PSS, or MSPSS.

Chapter 4

Discussion

The purpose of this research was to investigate the relationship between postpartum depression, parental stress and perceived social support among females. The total sample of this research was of 251 females belong to lower, middle and upper socio-economic status with different ethnicities. The significance of this research was to acknowledge the association of postpartum depression, parental stress and social support for understanding the mental health and consequences of postpartum depression and promoting the health and well-being of mothers and their children. A study done by Falana and Carrington (2019) showed that within a year of giving birth, 10% to 20% of women develop depression, and 25% of these women have depressed symptoms that last longer than a year. Because there hasn't been a lot of research done in Pakistan on these variables, the major goal was to look into the prevalence and tendency of postpartum depression. Literature revealed that people who were suffering from postpartum depression have low affection towards their children. More research needs to be carried out to understand the relationship between these variables and serve as a guide to parents and help them understand the underlying causes of mental health problems and provide appropriate care and support for mothers.

The Edinburgh Postnatal Depression Scale (EPDS) is a self-report measure. It was created by John Cox (1987) to measure maternal depression. The original reliability of EPDS is 0.91. According to the current study, the reliability of this scale was 0.67 (Table 2). The second measure used was the Parental Stress Scale (PSS). It was created by Berry and Jones (1995) to measure the parental stress. The original reliability of PSS is 0.90. According to this study, the reliability of this scale was 0.71

(Table 2). The third measure used was the Multidimensional Scale of Perceived Social Support (MSPSS). It was created by Zimet Gregory (1988) to assess perceived social support, putting particular emphasis on how each individual views their own level of perceived social support. The original reliability of MSPSS is 0.92. The reliability of scale according of this study was 0.79 (Table 2).

This study had three major hypotheses that we intended to investigate. According to our first hypothesis, there will be a significant relationship between postpartum depression and parental stress among females and thus these variables will significantly correlate with each other. The results of the current study show highly significant positive correlations between the postpartum depression and parental stress (r = 0.33, p = 0.01). Thus, supporting our hypothesis stated that there will be a significant relationship between postpartum depression and parental stress among females. Previous research has found that postpartum depression is strongly linked to parental stress (Oh & Kim, 2022).

According to O'Hara and McCabe (2013), the degree of duration of a child's exposure to his or her mother's depression has a crucial influence on predicting future issues. If a woman suffers from postpartum depression, the child's development suffers in terms of behavior, cognitive development and physical health. A study revealed that low-level maternal depressive symptoms have also been linked to poor parenting, mother-infant attachment, and child outcomes (Domek et al., 2022). Postpartum depression that is left untreated appears to have detrimental effects on both mothers and infants. According to research, postpartum depression is the most accurate indicator of parental stress (Leigh & Milgrom, 2008).

Supporting our second hypothesis stated that there will be a significant relation between social support and parental stress among females. According to the

results there is negative relation between social support and parental stress (r = -0.20, p = 0.01). Low level of social support leads to parental stress for new mothers. Studies revealed that parental discontent, Poor child sleep, lower income level, and a lack of assistance are all associated with increased parental stress among mothers (Sepa et al., 2004). Social support is vital to the aspect of maintaining mental health throughout one's life. Another study found that stress and mental health are buffered by perceived social support. People can benefit from the help of family, friends, or neighbors in lowering stress levels or addressing problem (Zhou et al., 2013). Parenting is likely to enhance with increased social support (DeGarmo et al., 2008).

According to Gage and Christensen (1991), level of social support perceived by moms is critical in reducing stress. Furthermore, Levy-Shiff (1998) found that women who felt more social support were less angry with their mother's capacity. Parents that have a significant amount of social support have reduced parental stress, which leads to more pleasant and effective parenting, according to Ostberg and Hagekull (2000). It is believed that parents who lack parenting experience, self-confidence, and support would find parenting to be more stressful. More specifically, parents who receive a lot of social support feel less stressed about parenting, while parents who receive less social support feel more stressed (Gordon et al., 2016).

Third hypothesis is about the relationship between social support and postpartum depression among females. Supporting our hypothesis there is a significant negative relation between these two variables (r = -0.06, p = 0.01). As mentioned above lower levels of social support also leads to postpartum depression. According to previous researches postpartum depression (PPD) is common in hospitalized women and that social support, regardless of other predictors, is a contributing cause of PPD (Vaezi et al., 2019). A significant risk factor for PPD is a

low amount of social support. Many studies have been conducted to study the association between social support and PPD. Almost all of them discovered that a lack of social support was associated with PPD (Tang et al., 2016; Reid et al., 2015).

Postpartum depression has been connected to a lack of social assistance from the mother-in-law all over the world (Chou et al., 2016). According to Gordon and his colleagues (2016) demonstrated that parents who experience depression and lack of social support are more prone to see their child as fragile. Another study finds that social support, provided by nurses, decreases the likelihood of PPD (Zlotnick et al., 2022).

From the above mentioned table 5 of Mann Whitney test of two independent samples test, explains the mean difference of Edinburgh postnatal depression scale (EPDS), parental stress scale (PSS) and multidimensional scale of perceived social support (MSPSS) along with family structures. The p values are greater than the assumed value of significance ($p < 0.05$). In addition, our research discovered a link between the joint family system and postpartum depression those who lived in a shared family system were more likely to suffer from PPD than those who lived in a nuclear family structure (Yadav et al., 2020). Naveed and Naz (2015) came to the same conclusions about the combined family setup and higher incidence of PPD.

Conclusion

Based on the analysis of the data, we can conclude that there is a significant positive correlation between postpartum depression and parental stress, indicating that higher levels of parental stress are associated with higher level of postpartum depression. On the other hand, there is a negative correlation between postpartum depression and perceived social support, meaning that as the level of perceived social support increases, the level of parental stress and postpartum decreases. These

findings suggest that interventions aimed at reducing parental stress and increasing perceived social support may be effective in preventing or managing postpartum depression. Further research is necessary to identify the most effective interventions for these target variables.

Limitations and Suggestions

1. A cross-sectional study cannot establish causality between variables, meaning it cannot determine whether postpartum depression causes low social support or vice versa.
2. The sample used in the study may not be representative of the broader population, meaning that the results cannot be generalized to other populations.
3. Self-report measures for postpartum depression, parental stress, and perceived social support may be subject to bias, such as social desirability bias.
4. The study design does not allow for assessing the long-term effects of postpartum depression, parental stress, and social support on the well-being of new mothers beyond the immediate postpartum period.
5. Healthcare providers, including obstetricians, pediatricians, and mental health professionals, should implement routine screenings for postpartum depression during prenatal and postnatal visits. Early identification and intervention can prevent or mitigate the negative consequences of untreated PPD.
6. Establishing accessible and affordable mental health services that specialize in maternal mental health is crucial. This includes providing counseling, therapy, and support groups specifically tailored to address postpartum depression and parental stress. Collaboration between healthcare providers and mental health professionals is essential to ensure comprehensive care.

Implications

1. The current study can help healthcare practitioners, psychologists and counselors dealing with postpartum depression and parental stress for both parents.

2. In the early postpartum period, healthcare practitioners should screen both mothers and fathers and offer them specialized support and care.
3. Current study can help psychologists to develop an appropriate interventions and strategies for postpartum depression and parental stress to enhance the life of parents and their off-springs.
4. Healthcare professionals should receive training on recognizing the signs and symptoms of postpartum depression, parental stress, and the importance of social support. Public awareness campaigns can help reduce the stigma surrounding mental health issues and encourage individuals to seek help when needed.
5. Community and social support programs should be developed or strengthened to provide assistance to new mothers. This can include peer support groups, parenting classes, home visiting programs, and community resources that promote social connections and reduce isolation.

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Appendices

Informed Consent Form

I understand that this study is being conducted by the student of Department of Psychology, Capital University of Science and Technology, Islamabad as a part of their research thesis.

I hereby confirm my participation in the project is voluntarily. I know that the researchers will not disclose my demographic information in the reports after seeking results from the research as well as my confidentiality will be maintained as a participant. I have a right to withdraw and discontinue my participation anytime whenever I require it to be, without any penalties.

Signature: _____

Date: _____

Demographic Information Form

For the following items, please select the response that is most descriptive of you or fill in the blank as appropriate.

Age	_____
Level of education	Matric ☐ Inter ☐ Bachelor ☐
Marital status	Married ☐ Divorced ☐ Separated ☐
No. of children	_____
Family structure	Joint ☐ Nuclear ☐
Socio-economic status	Lower ☐ Middle ☐ Upper ☐
Spoken language	Urdu ☐ English ☐ other ☐
Religion	Islam ☐ Christianity ☐ other ☐
Ethnicity	_____
Physical Disability	Yes ☐ No ☐
Psychological Disorder	Yes ☐ No ☐

Edinburgh Postnatal Depression Scale (EPDS)

As you are pregnant or have recently had a baby, we would like to know how you are feeling.

1. I have been able to laugh and see the funny side of things. a. As much as I always could b. Not quite so much now c. Definitely not so much now d. Not at all	2. I have looked forward with enjoyment to things. a. As much as I ever did b. Rather less than I used to c. Definitely less than I used to d. Hardly not at all
3. I have blamed myself unnecessarily when things went wrong. a. Yes, most of the time b. Yes, some of the time c. Not very often d. No, never	4. I have been anxious or worried for no good reason. a. No, not at all b. Hardly ever c. Yes, sometimes d. Yes, very often
5. I have felt scared or panicky for no very good reason. a. Yes, quite a lot b. Yes, sometimes c. No, not much d. No, not at all	6. Things have been getting on top of me. a. Yes, most of the time I haven't been able to cope at all b. Yes, sometimes I haven't been coping as well as usual c. No, most of the time I have coped quite well d. No, I have been coping as well as
7. I have been so unhappy that I have had difficulty sleeping. a. Yes, most of the time b. Yes, some of the time c. Not very often d. No, never	8. I have felt sad or miserable. a. Yes, most of the time b. Yes, some of the time c. Not very often d. No, never
9. I have been so unhappy that I have been crying. a. Yes, most of the time b. Yes, quiet often c. Only occasionally d. No, never	10. The thought of harming myself has occurred to me a. Yes, quiet often b. Sometimes c. Hardly ever d. Never

Parental Stress Scale

The following statements describe feelings and perceptions about the experience of being a parent. Think of each of the items in terms of how your relationship with your child or children typically is. Please indicate the degree to which you agree or disagree with the following items.

1 = Strongly disagree
2 = Disagree
3 = Undecided
4 = Agree
5 = Strongly agree

Items	1	2	3	4	5
1. I am happy in my role as a parent.					
2. There is little or nothing I wouldn't do for my children if it was necessary.					
3. Caring for my children sometimes takes more time and energy than I have to give.					
4. I sometimes worry whether I am doing enough for my children.					
5. I feel close to my children.					
6. I enjoy spending time with my children.					
7. My children are an important source of affection for me.					
8. Having children gives me a more certain and optimistic view for the future.					
9. The major source of stress in my life is my children.					

10. Having children leaves little time and flexibility in my life.					
11. Having children has been a financial burden.					
12. It is difficult to balance different responsibilities because of my children.					
13. The behavior of my children is often embarrassing or stressful to me.					
14. If I had it to do over again, I might decide not to have children.					
15. I feel overwhelmed by the responsibility of being a parent.					
16. Having children has meant having too few choices and too little control overmy life.					
17. I am satisfied as a parent.					
18. I find my children enjoyable.					

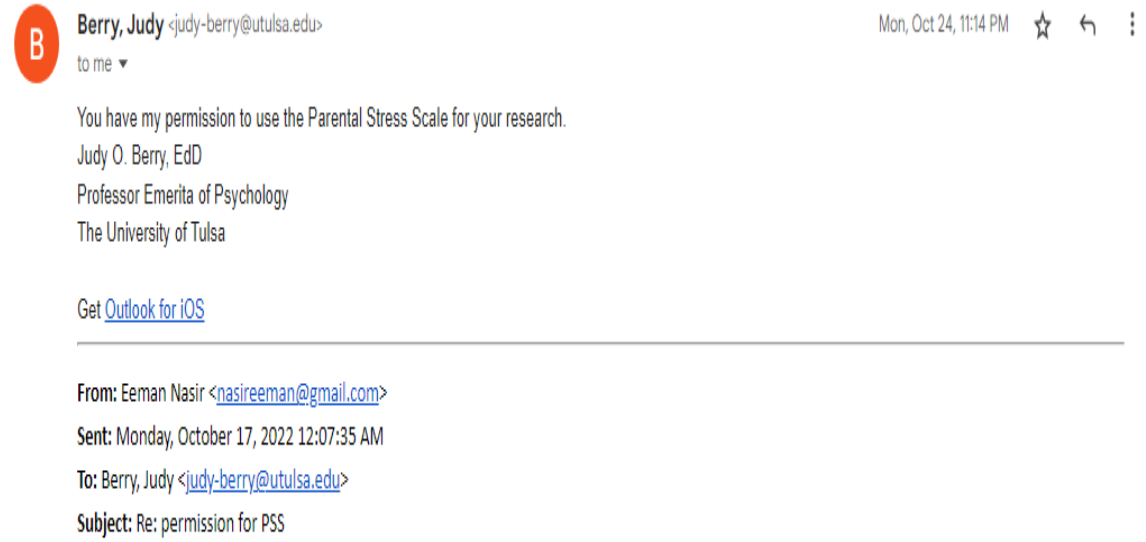
Multidimensional Scale of Perceived Social Support

We are interested in how you feel about the following statements. Read each statementcarefully. Indicate how you feel about each statement.

1 = Very Strongly Disagree
2 = Strongly Disagree
3 = Mildly Disagree
4 = Neutral
5 = Mildly Agree
6 = Strongly Agree
7 = Very Strongly Agree

Items	1	2	3	4	5	6	7
1. There is a special person who is around when Iam in need.							
2. There is a special person with whom I can sharemy joys and sorrows.							
3. My family really tries to help me.							
4. I get the emotional help and support I need frommy family.							
5. I have a special person who is a real source ofcomfort to me.							
6. My friends really try to help me							
7. I can count on my friends when things go wrong.							
8. I can talk about my problems with my family.							
9. I have friends with whom I can share my joysand sorrows.							
10. There is a special person in my life who caresabout my feelings.							
11. My family is willing to help me make decisions.							
12. I can talk about my problems with my friends.							

User Permission for Parental Stress Scale



Berry, Judy <judy-berry@utulsa.edu> Mon, Oct 24, 11:14 PM

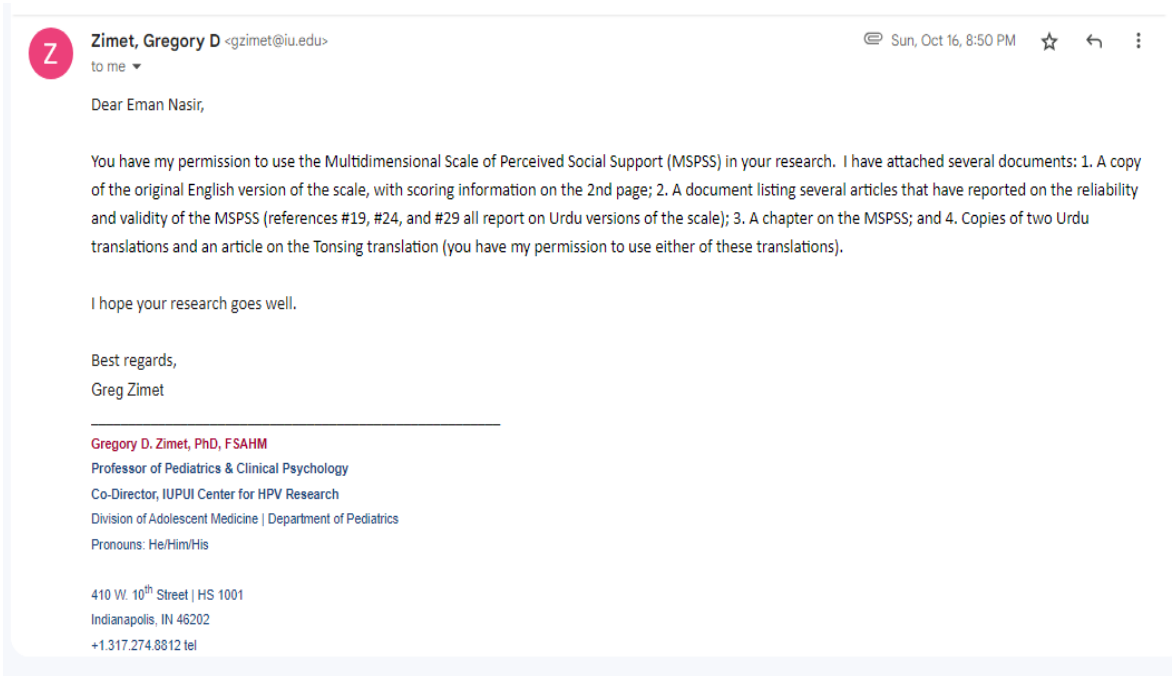
to me

You have my permission to use the Parental Stress Scale for your research.
Judy O. Berry, EdD
Professor Emerita of Psychology
The University of Tulsa

Get Outlook for iOS

From: Eeman Nasir <nasireeman@gmail.com>
Sent: Monday, October 17, 2022 12:07:35 AM
To: Berry, Judy <judy-berry@utulsa.edu>
Subject: Re: permission for PSS

User Permission for Multidimensional Scale of Perceived Social Support



Zimet, Gregory D <gzimet@iu.edu> Sun, Oct 16, 8:50 PM

to me

Dear Eman Nasir,

You have my permission to use the Multidimensional Scale of Perceived Social Support (MSPSS) in your research. I have attached several documents: 1. A copy of the original English version of the scale, with scoring information on the 2nd page; 2. A document listing several articles that have reported on the reliability and validity of the MSPSS (references #19, #24, and #29 all report on Urdu versions of the scale); 3. A chapter on the MSPSS; and 4. Copies of two Urdu translations and an article on the Tonsing translation (you have my permission to use either of these translations).

I hope your research goes well.

Best regards,
Greg Zimet

Gregory D. Zimet, PhD, FSAHM
Professor of Pediatrics & Clinical Psychology
Co-Director, IUPUI Center for HPV Research
Division of Adolescent Medicine | Department of Pediatrics
Pronouns: He/Him/His

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Eman Nasir - BSP193043

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