

# ASSOCIATION BETWEEN ALEXITHYMIA, LIFE SATISFACTION AND POSTPARTUM DEPRESSION AMONG PAKISTANI WOMEN.



By

Maryam Dawood

BSP191012

A Research Thesis submitted to the  
DEPARTMENT OF PSYCHOLOGY

In partial fulfilment of the requirements for degree of  
BACHELOR OF SCIENCE IN PSYCHOLOGY

Faculty of Management and Social Science  
Capital University of Science and Technology,

Islamabad

January 2023

BSP191012

DEPARTMENT OF PSYCHOLOGY

JANUARY 2023

# ASSOCIATION BETWEEN ALEXITHYMIA, LIFE SATISFACTION AND POSTPARTUM DEPRESSION AMONG PAKISTANI WOMEN.



By

Maryam Dawood

BSP191012

A Research Thesis submitted to the  
DEPARTMENT OF PSYCHOLOGY

In partial fulfilment of the requirements for degree of  
BACHELOR OF SCIENCE IN PSYCHOLOGY

Faculty of Management and Social Science  
Capital University of Science and Technology,

Islamabad

January 2023

## CERTIFICATE OF APPROVAL

It is certified that the Research Thesis titled "Association between Alexithymia, Life Satisfaction and Postpartum Depression among Pakistani Women" carried out by Maryam Dawood, Reg. No. BSP191012, under the supervision of Ms. Aysha Aneeq, Capital University of Science & Technology, Islamabad, is fully adequate, in scope and in quality, as a Research Thesis for the degree of BS Psychology.

Supervisor:



Ms. Aysha Aneeq

Lecturer

Department of Psychology

Faculty of Management and Social Sciences

Capital University of Science & Technology, Islamabad

HoD:



Dr. Sabahat Haqqani

Assistant Professor

Department of Psychology

Faculty of Management and Social Sciences

Capital University of Science & Technology, Islamabad

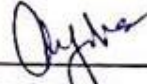
**Association between Alexithymia, Life Satisfaction and Postpartum Depression  
among Pakistani Women**

By

Maryam Dawood

Registration # BSP191012

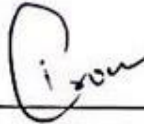
Approved By



---

Supervisor

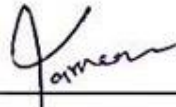
Ms. Aysha Aneeq



---

Internal Examiner-I

Ms. Irum Noureen



---

Internal Examiner-II

Ms. Parveen Akhtar



---

Thesis Coordinator

Ms. Irum Noureen



---

Head of Department

Dr. Sabahat Haqqani

Copyright © 2023 by CUST Student

All right reserved. Reproduction in whole or in part in any form requires the prior written permission of Maryam Dawood or designated representative.

## DEDICATION

*This Research is wholeheartedly dedicated to my parents, Dawood Ahmed and Kulsoon Nazir who have been my constant source of happiness and success.*

## DECLARATION

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.



Maryam Dawood

BSP191012

January 2023

## ACKNOWLEDGEMENT

Firstly, I would like to thank Allah Almighty, the Lord of entire universe for letting me through all the difficulties and for giving me strength and ability to comprehend, learn and complete this report.

Foremost, I want to thank my devoted and dependable parents Dawood Ahmed and Kulsoom Nazir for always being there for me. They provided the drive, support, and encouragement that made this research possible. I sincerely appreciate my strong mother's efforts, support, love, and endless prayers for my academic accomplishment.

I would like to acknowledge and give my warmest thanks to my head of department Dr. Sabahat Haqqani and my supervisor Ms. Aysha Aneeq who made this work possible. Also, I would like to thank my teacher Mr. Muhammad Naeem for helping me with data analysis. Their guidance and advice carried me through all the stages of writing my project. I extend my gratitude to all the authors for granting me permission to use their scales in the study as well as translating them. I am grateful for the hospitals for granting me permission for data collection.

Finally, it gives me great pleasure to convey my sincere gratitude and appreciation to my closest friends and my siblings, who have always stood by my side during my most trying times and who have also served as a source of inspiration and encouragement. I would like to pay my gratitude to Ms. Mishal Saleem and Ms. Fatima Dawood who helped me in data collection and all the participants who participated in the study. Furthermore, I am thankful to Ms. Laraib Tariq for helping me in data entry and motivating me throughout the journey.



## ABSTRACT

Postpartum depression is subtype of depression that occurs after 4 weeks postpartum till several months. It is one of the most common mental illnesses that affects many women from different cultures. Postpartum depression has negative impact on mother as well as the baby. It has gotten very less attention in Pakistan. According to a study conducting in 2021, prevalence rate of Postpartum depression is 30% while study from 2013 shows 28 % to 63 % prevalence, placing it among the highest in Asia. The main purpose of the present study was to find Association between Alexithymia, Life Satisfaction and Postpartum Depression among Pakistani Women. For this purpose, cross-sectional study was conducted. A sample of 150 respondents was selected through purposive sampling. Data was collected from gynaecology and paediatric departments of hospitals in Rawalpindi and Islamabad as well as through online social media platform. After taking consent and debriefing the participants were provided with Urdu translation of self-report questionnaire (Edinburgh Postnatal Depression Scale, Perth Alexithymia Questionnaire, Satisfaction With Life Scale). Data was analysed through frequency, descriptive, ANOVA, correlation and regression analysis using SPSS. Significant positive association between Alexithymia and Postpartum Depression ( $r = .37, p = .000$ ) was found while significant negative relationship between Life Satisfaction and Postpartum Depression ( $r = .36, p = .000$ ) was found. For mothers who experience postpartum depression symptoms during pregnancy or after giving birth, it is advised that she seek professional counselling and the appropriate medication.

*Keywords* Alexithymia, Breastfeeding Behaviour, Life Satisfaction, Postpartum Depression.

## TABLE OF CONTENT

CERTIFICATE OF APPROVAL .....	<b>Error! Bookmark not defined.</b>
DEDICATION .....	vi
DECLARATION .....	<b>Error! Bookmark not defined.</b>
ACKNOWLEDGEMENT .....	viii
ABSTRACT.....	ix
LIST OF TABLES .....	xiv
LIST OF FIGURES .....	xv
CHAPTER 1 - INTRODUCTION .....	1
Literature Review.....	4
Postpartum depression .....	4
Life Satisfaction .....	7
Life Satisfaction and Postpartum Depression .....	8
Alexithymia and Life Satisfaction .....	8
Breastfeeding Behavior.....	9
Breastfeeding Behavior and Postpartum Depression.....	10
Theoretical Framework .....	11
Rationale .....	13
Objective .....	14
Hypotheses .....	14
CHAPTER 2 – METHODS .....	15

Research design.....	15
Sampling technique.....	15
Inclusion criteria .....	15
Exclusion criteria .....	15
Instruments.....	15
Demographic form .....	16
Edinburgh Postnatal Depression Scale (Cox JL, 1987) .....	16
Perth Alexithymia Questionnaire (David A. Preece, 2018).....	16
Scale translation (Perth Alexithymia Questionnaire).....	17
Satisfaction With Life Scale (Carol Diener, 1985) .....	17
Ethical consideration.....	18
Statistical Analysis .....	19
Pilot study .....	20
Objective of pilot study .....	20
Descriptive and alpha reliability for pilot study.....	20
Correlation Analysis for pilot study.....	21
Table 2.....	21
CHAPTER 3 - RESULTS.....	22
Sample characteristics .....	23
Table 3.....	23
Descriptive and reliability analysis .....	25

Table 4.....	25
Distribution curve .....	26
Figure 1 .....	26
Figure 2 .....	26
Figure 3 .....	27
Correlation Analysis .....	28
Table 5.....	28
Multiple Regression Analysis .....	29
ANOVA Analysis .....	31
CHAPTER 4 - DISCUSSION.....	32
CONCLUSION.....	38
LIMITATIONS .....	39
FUTURE RECOMMENDATIONS .....	40
IMPLICATIONS .....	41
REFERENCES.....	42
APPENDICES .....	56
Appendix A.....	57
Information sheet .....	57
Appendix B .....	58
Informed consent form.....	58
Appendix C .....	59

Demographic sheet.....	59
Appendix D.....	60
Edinburgh Postpartum depression Scale.....	60
Appendix E.....	66
Perth Alexithymia Questionnaire.....	66
Appendix F.....	70
Satisfaction With Life Scale.....	70
Appendix G.....	71
Permission grant from authors of the scales.....	71
Appendix H.....	72
Support letter for data collection.....	72

---

**LIST OF TABLES**

---

Sr #	Title	Pg #
Table 1	Descriptive and reliability analysis for pilot study	20
Table 2	Correlation analysis for pilot study	21
Table 3	Sample characteristics	23
Table 4	Descriptive and reliability analysis	25
Table 5	Correlation analysis	28
Table 6	Multiple Regression analysis	29
Table 7	ANOVA analysis	31

---

---

**LIST OF FIGURES**

---

Sr #	Title	Pg #
Figure 1	Distribution of scores for Edinburgh Postpartum Depression Scale.	26
Figure 2	Distribution of scores for Satisfaction With Life Scale	27
Figure 3	Distribution of scores for Perth Alexithymia Questionnaire	27

---

## CHAPTER 1 - INTRODUCTION

Childbirth is critical yet important transitional incident in women's life. According to UN about 385,000 babies are born around the world per day (The World Counts, 2022). Where, around 14,900 are born in Pakistan each day (Countrymeters.info, 2022). Pakistan's maternal mortality rate is higher than that of its neighbours and other Asian low-income nations (Anjum & Batool, 2019). Because of difficulties associated with childbearing and pregnancy, one in 89 women pass away (Rau, 2015). Malnutrition, haemorrhage, eclampsia, sepsis, severe anaemia, lack of access to antenatal and prenatal care, and inexperienced staff/midwives are the main causes of maternal mortality (Anjum & Batool, 2019). Since postpartum depression is the most prevalent pregnancy complication which is affecting 15% of women, it poses a serious public health issue for both women and their families. (Marcus, 2009). This is a global issue that affects both developed and developing countries.

According to a study conducted in 2021 in Pakistan, prevalence rate of Postpartum depression is 30% (Atif et al.,2021) while study from 2013 placed Pakistan to the highest in Postpartum depression rate among Asia with prevalence of 28 % to 63% (Gulamani et al., 2013). Almost one third women are moderately or severely suffering from Postpartum depression (Muneer et al., 2009). This entire phenomena in Pakistan occurs due to demographic, environmental, cultural, economic, and social issues. The danger of postpartum depression extends to Pakistani women living abroad (Anjum & Batool, 2019). There are several risk factors that might result in postpartum depression, and hormonal changes may be one of the main contributors to this condition (Anjum & Batool, 2019). Moreover, marital dissatisfaction, poor quality of life, life dissatisfaction, poor social support, history of depression in family, low self-esteem,



major mood disorders are among other factors that leads to postpartum depression (Rau, 2015).

Alexithymia is considered as one of the main factors that predict postpartum depression. Alexithymia is a personality trait that is recognized for traits, such as challenges describing feelings, and some definite, externally focused thought patterns (Sifneos, 1973). Moreover, three key characteristics define alexithymia (a) difficulties recognizing emotions and differentiating them from body sensations; (b) difficulty expressing or explaining feelings to others; and (c) an externally oriented way of thinking. (Apfel & Sifneos, 1979; Taylor, 1994; Taylor et al., 1999). Parents who struggle to control their own emotions, or who have a high level of alexithymia, likewise struggle to pay attention to and understand their children's feelings. As a result, they are unable to help their children learn to control their own emotions. (Fukunishi et al., 1997; Kooiman et al., 2004; Lumley et al., 1996)

Breastfeeding behavior is also considered as possible predictor of Postpartum depression. Time period from child's birth to several months is very complex yet important time for growth and development of a child. Mothers who breastfeed their babies for at least first few months of their life provides them with best food (Ghanbarnejad et al., 2014). Practically no substance can ever replace breast milk in terms of benefits it provides (Innis, 2003). Breast milk contains more than 400 beneficial ingredients, such as white blood cells and antibodies which are very important part of human immune system that fight against the diseases, so it is not possible to replicate it in the laboratory (Taylor et al., 2004). It reduces mortality, diabetes, diarrhea, abdominal colic, intestinal bleeding, acute respiratory infections,

asthma, atopic disease and jaundice, and obesity (Heydarpour et al., 2011). It plays vital role in the development of important neurons and other brain cells (Innis, 2003).

Satisfaction with life is an important factor that predict postpartum depression. According to The Statistical manual of mental disorders, life satisfaction is the degree to which a person perceives life to be rich, meaningful. (APA, 2022). According to another definition of life satisfaction, it is the overall assessment of a person's quality of life based on the person's own selected criteria. (Shin & Johnson, 1978). The new mother experiences significant changes in her life, marital relationships, social role, obligations, physiology, financial adjustments, and interpersonal relationships during this transition period after giving birth (Hung, 2005). There is a higher chance of experiencing postpartum depression symptoms because of all these changes. These symptoms affect how the mother perceives and evaluates her quality of life and level of contentment with life. (Badr et al., 2021).

## **Literature Review**

This chapter discuss the background of the study variables along with the association of Alexithymia, Breastfeeding Behavior and Life satisfaction with Postpartum Depression. It also outlines the reason why study variables are considered as possible predictor of Postpartum Depression.

### ***Postpartum depression***

Postpartum depression is provided by two existing diagnostic systems DSM-V and ICD-10, according to Diagnostic and Statistical Manual of Mental Disorders (DSM-V) recognizes postpartum depression as a major depressive disorder with postpartum onset where symptoms begin within 4 weeks postpartum while the International Classification of Diseases (ICD-10) recognizes Postpartum depression as mild mental and behavioural disorder commencing within 6 weeks of delivery. National Organization for Rare Disorders (2022) explained that during the time of pregnancy, two female hormones named estrogen and progesterone, raise to a great level. However, after the birth of a child within next 24 hours the level of these hormones quickly fall to their old level or even sometimes below that level (NORD,2022). Researchers believe that these rapid and vast changes in hormones during pregnancy and after childbirth may lead to depression. However, there are risks of postpartum depression up to several months after delivery (NORD,2022).

Women who experience postpartum depression frequently experience sadness, physical pain, changes in eating and sleeping habits, low energy, sobbing outbursts, dread of being alone, loss of focus and confidence, decreased sex desire, impatience, and suicidal thoughts. (Beck & Indman, 2005).

Postpartum depression leads to negative outcomes for both mother as well as child which includes maternal suicide, early termination of breastfeeding, weak mother child interaction and child's developmental delay (Morikawa, 2015). Mothers who have higher rate of Postpartum depression often show hostility and negligence towards their child. Moreover, they have low patience and are less passionate towards the need of their baby (Murray et al., 1996; Stein et al., 2014). Postpartum depression impairs the child in terms of behavioural and cognitive processes. It also causes delay in psychological and emotional development as well as it affects the physical development of infants (Letourneau et al., 2012). Postpartum depression becomes the major reason for increased marital problems in terms of communication barriers, feelings of isolation and decreased interaction with the baby (Stein et al., 2014). Therefore, it is very important to early diagnose, manage and prevent postnatal related issues, to establish an optimal, healthy home and family environment for babies as well as for mother.

Postpartum depression is regarded as a frequent mental condition, and women are more susceptible to develop it due to several causes. There is not one cause that can be linked to postpartum depression; rather, it could be brought on by several connected factors. Studies and ideas have identified several risk factors that can lead to postpartum depression. Hormonal changes, sleep disorders, interactions between mothers and their infants, and Stressful life circumstances, self-crisis, and anxiety about becoming a parent, lack of assistance from a spouse or family members having a helpless feeling, losing control over one's life (Field, 2017; Bener et al., 2012; Beck, 2002; Whiffen and Susan, 1998; Sullivan, 1953). Numerous more possible causes, including biological, psychological, and obstetric variables, have been implicated in the emergence of postpartum depression. Evidence suggests that in addition to genetic or biological

variables, environmental, cultural, and demographic factors may also predispose an individual to postpartum depression (Mohamed, et al., 2011).

### *Alexithymia*

The word "alexithymia," when translated, literally means "A lack of words for feelings". Alexithymia is a more complex and specialized form of emotion dysregulation, whereas emotion dysregulation is typically understood to relate to a wider range of behaviors (Taylor et al., 1999). Since its inception, alexithymia has been characterized as having five main characteristics: (i) trouble recognizing one's emotions; (ii) trouble verbally expressing one's feelings; (iii) diminished or absent emotional experience; (iv) a cognitive orientation that is external; and (v) a limited capacity for fantasizing or symbolic thought (Nemiah, 1976). Alexithymia is hypothesized to come in two different forms: primary (also known as trait) alexithymia and secondary (also known as state) alexithymia.

The distinction between these types was initially made by Freyberger, who said that primary alexithymia should be seen as a dispositional element and secondary alexithymia as a defense mechanism that can be manipulated during treatment (Freyberger, 1977). According to the percentage of participants scoring above the Toronto Alexithymia Scale's authors suggested high Alexithymia cutoff (Bagby et al., 1994; Taylor, et al., 1997). According to Joukamaa et al. (2003), Mason et al. (2005), and Salminen et al. (1999), the proportion of individuals with high alexithymia scores ranges between 7 and 18% in population samples and between 30 and 60% in clinical samples (McGillivray et al., 2017; Parker et al., 2008; Taylor, 2000).

### ***Alexithymia and Postpartum depression***

The development of postpartum depression involves alexithymia and metacognitive errors (Diop et al., 2022). Alexithymia and depression were found to be strongly positively associated in the total Finnish population using the TAS-20 and Beck Depression Inventory (BDI-21), respectively (Honkalampi et al., 2000). Additionally, 116 patients with depression and 540 healthy controls were studied to determine the relationship between alexithymia (TAS-20) and depression (BDI), and it was found that the severity of depression was strongly correlated with alexithymia (Honkalampi et al., 2001).

Additionally, 77 pregnant women with alexithymia (TAS-20) were found to have a positive relationship with depression (Centre for Epidemiological Studies Depression Scale) (Mattila et al., 2008). Earlier studies did not find any significant associations between alexithymia and postpartum depression symptoms (Le et al., 2007; Honkalampi et al., 2010; Karukivi et al., 2015). Later research revealed that there was a significant positive correlation of alexithymia with risk for postpartum depression (Stojanov, 2021; Denis & Luminet, 2018). This means the more the level of Alexithymia in new mother the more the chances of suffering from postpartum depression.

### ***Life Satisfaction***

In determining one's satisfaction with life, judgements are based on a comparison with a standard that each individual set for him/herself (Aasheim et al., 2014). According to Ruut Veenhoven "satisfaction with life is the degree to which a person positively evaluates the overall quality of his/her life. In other words, how much the person likes the life he/she leads" (1996). Numerous self-report instruments exist

to measure life satisfaction. Some tools only have one question, while others ask participants to answer several questions (Veenhoven, R., 1996). In general, researchers agree that multiple-item life satisfaction assessments are better than single-item surveys (Pinquart, M., & Sorensen, S., 2000). Additionally, it has been argued by Ed Diener (1999) that multi-item scales have generally shown higher reliability and validity than single item measures. The Satisfaction With Life Scale, a multi-item scale, is the most often used and thoroughly verified indicator of life satisfaction.

### ***Life Satisfaction and Postpartum Depression***

Due to adaptation of new role of mother and major hormone changes, the levels of satisfaction with life are relatively unstable (Nes et al., 2006). The happiness of a new mother affects not only her own welfare but also the wellness of her child and the rest of the family (Nielsen et al., 2020). If the mother is not satisfied with her life, then it might be the risk factors to for the well-being of mother which may also affect her children (Gebuza et al., 2014). Studies have revealed that during a woman's reproductive life, her level of satisfaction increased steadily. (Easterlin, R. A., 2006). A recent study conducted in Faisalabad found that there is a significant negative relationship between postpartum depression and satisfaction with life among postpartum women of Faisalabad district (Yaqoob et al., 2020). This shows that higher the Postpartum Depression lower the level of satisfaction with life. Furthermore, a different study found that higher postnatal depression was linked to lower life satisfaction and role quality (Hall, 2007).

### ***Alexithymia and Life Satisfaction***

Age, male gender, single marital status, lower socioeconomic status and worse reported health are all linked to alexithymia (Lane et al., 1998). A cross sectional study conducted revealed that life satisfaction was negatively correlated with alexithymia in

American students (Le et al., 2002). Another study revealed that low life satisfaction was one of the factors associated with being depressed and alexithymic (Honkalampi et al., 2004). Several studies revealed that alexithymic subjects had lower life satisfaction. They were more commonly depressed and dissatisfied with life than others (Valkamo et al., 2000; Valkamo et al., 2001; Honkalampi et al., 1999). Alexithymia is associated with less satisfaction with life in primary healthcare patients even when perceived physical health and depression have been taken into consideration as confounding factors (Valkamo et al., 2000; Valkamo et al., 2001).

### ***Breastfeeding Behavior***

Breastfeeding is important source of nutrition for child's growth and development and has optimal psychological, biological, and emotional impacts on the health of mothers and babies (Olang et al., 2012). Breast milk is sufficient in pure quality and highly absorbed substances that provide the baby with strength, nutritional balance, better digestion, and healthy development (Pope & Dwight, 2016).

Pakistan has the lowest breastfeeding rate in entire Asia (Shah & Lonergan, 2017). In January 2000, the Human service department of US conducted a conference which made certain national goals which were supposed to improve health over next few years. Among those settled goals is the idea to focus on increasing the percentage to 75% of infants to be breastfed in the early postpartum, the percentage rate of breastfeeding at 6 months to 50%, and the percentage rate of breastfeeding at 1 year to 25% (Ramadhani, A. K., & Suryananda, A., 2022).

The health and development of babies is very much dependent on breastfeeding. The benefits of breastfeeding for both mother and child are widely known and exclusive breastfeeding for the first few months after child's birth is recommended as it is



considered as the single most potential intervention that can be used to avoid child mortality (Hamdan & Tamim, 2012). Moreover, in terms of increasing exclusive breastfeeding behaviour, there are several important things to be looked at, such as the support factor from the spouse, support from health care providers in terms of providing the mother with necessary information and support from family and the surrounding environment i.e., friends and relatives (Rostamkhan et al., 2020)

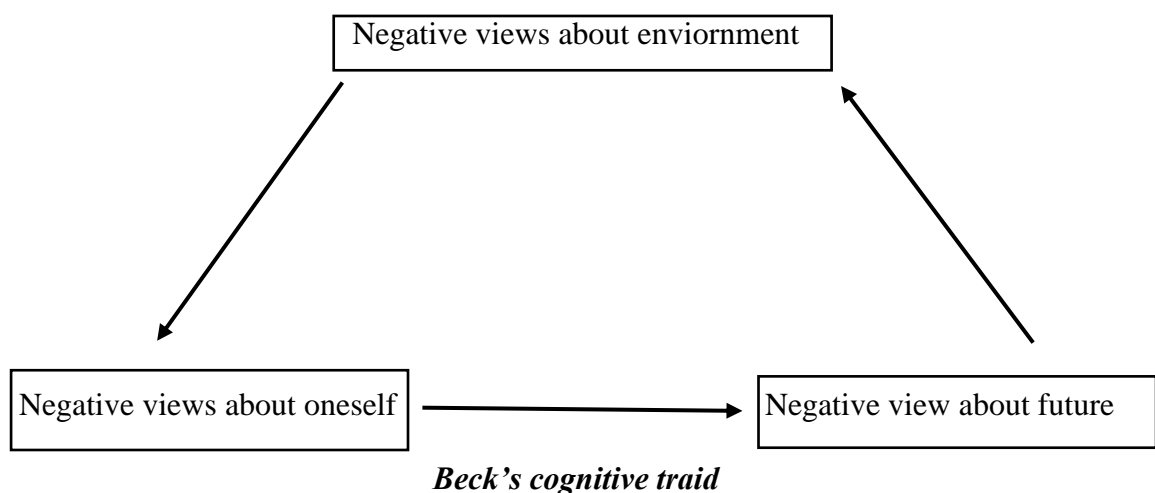
### ***Breastfeeding Behavior and Postpartum Depression***

Mothers who do not initiate breastfeeding are more at risk of Postpartum Depression than those who do. Therefore, women who breastfeed their infants reduce their risk of depression, when maintained for the first 4 months' post-partum (Figueiredo et al., 2014; Shah & Lonergan, 2017). However, a vast amount of research shows that the severity of depression is not significantly related to breastfeeding behaviour (McCarter-Spaulding & Horowitz, 2017). It is observed that there might be a mutual association between breastfeeding and Postpartum Depression as, Postpartum Depression might decrease the rate of breastfeeding. Studies reported a negative association between baby blues and intention to breastfeeding (Insaf et al. 2011).

## Theoretical Framework

Beck's cognitive triad provides a valuable lens through which you can understand the current study. It was proposed by Aaron Beck in 1967. The triad involves uncontrollable negative thoughts about oneself, the environment, and the future. People with depression often find difficulty in defining their emotions, are least satisfied with their life and feel helpless most of the time.

Suffering people blame themselves for unpleasant experiences happening in their life. They tend to feel excessively guilty, blameworthy for every mistake they make, and feel rejected by self and others. Beck proposes that those with depression develop cognitive distortions i.e., faulty or unhelpful thinking patterns. People with depression will tend to maximize, minimize, personalize, or overgeneralize an event.



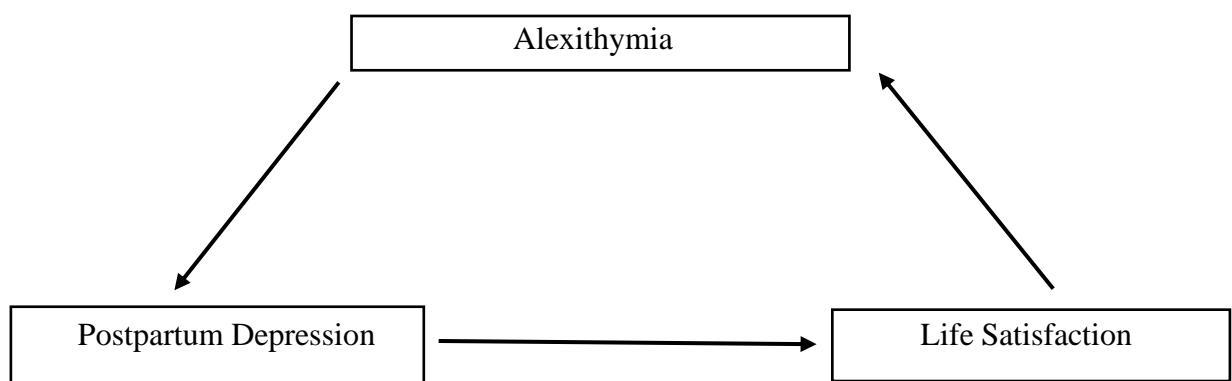
The theory applies to current research as with the increase in responsibility of mother after the birth of baby affects mental peace of mother which leads to negative thought patterns. These cognitive distortions like considering themselves as bad mothers by maximizing single bad event or unable to deal with a situation and overgeneralizing it on entire life, thinking entire life is ruined.

Alexithymia can lead to mothers' negative thoughts about the world. New mothers suffering from Alexithymia find it difficult to defining their feelings and

emotions. Alexithymia affects interpersonal relationships due to inability of person suffering from Alexithymia to understand his feelings and emotions and communicate them with others. Alexithymia is linked with poor quality marital relationships and high rates of divorce due to continual denial of emotional validation and support (Rodman, 2017).

Postpartum depression can lead to mothers' irrational beliefs about herself. Mothers suffering from Postpartum depression consider themselves as blameworthy and guilty whenever something goes wrong. Inability to perform duties of mother due to impatience, low sensitivity, hostility, fewer and more negative interactions, less responsiveness, and less efficient communication leads to negative thoughts about mother herself (Slomian et al., 2019).

Lower level of life satisfaction leads to mothers' irrational thoughts about future. New mothers who are less satisfied with life stress about her future responsibilities. Mothers suffering from lower level of life satisfaction have less hope and optimism about future (Duggal et al., 2016). Life satisfaction is correlated with meaning in life, and psychological well being in future (wu, 2011)



*Beck's Cognitive Traid*

## **Rationale**

Nearly one-third of women have mild to severe postpartum depression (Muneer et al., 2009). To create an ideal, healthy home and family environment for both the mother and the baby, it is important to detect, treat, and prevent postpartum depression symptoms. Even if postpartum depression cannot always be prevented, research can be done to identify and get rid of the risk factors.

It is important to carry out this study in Pakistan due to cultural variations, religious and spiritual traditions, and practices observed during postpartum here. As there is an increase in prevalence and need for more research to be done on this topic. So, finding the elements that raise the likelihood of postpartum depression in Pakistan is critically important.

Further on, due to dramatic increase in prevalence of postpartum depression over the past few years has caused negative effects on both mother and babies (Morikawa, 2015). The negative effects of postpartum depression impact on baby's social, academic, and personal life. These babies displayed milder behavioural issues, scored lower on object concept tasks, and had more insecure attachments to their mothers (Estinfort et al., 2022).

Moreover, as literature shows there are controversies regarding positive, negative or no relationship between breastfeeding Behavior and postpartum depression (Insaf et al. 2011; Figueiredo et al., 2014; McCarter-Spaulding & Horowitz, 2017). So, it is necessary to find the relationship between these variables to identify the possible predictors of postpartum depression among women of Pakistan.

## **Objective**

Current study objectives were as follows

1. To find the relationship between Alexithymia and Postpartum Depression among Pakistani women.
2. To find the relationship between Life Satisfaction and Postpartum Depression among Pakistani women.
3. To find the relationship between Alexithymia and Life Satisfaction among Pakistani women.
4. To find the difference in levels of Postpartum Depression and breastfeeding behavior (breastfeed, bottle-feed or both) among Pakistani women.

## **Hypotheses**

Hypotheses of the study were:

- H1:** There would be significant positive relationship between Alexithymia and Postpartum Depression among Pakistani women.
- H2:** There would be significant negative relationship between Life Satisfaction and Postpartum Depression among Pakistani women.
- H3:** There would be significant negative relationship between Alexithymia and Life Satisfaction among Pakistani women.
- H4:** There would be significant difference in levels of Postpartum Depression and breastfeeding behavior (breastfeed, bottle-feed or both) among Pakistani women.

## CHAPTER 2 – METHODS

In this chapter details of the methodology used in the thesis are presented including research design, sampling technique, inclusion and exclusion criteria, instruments used and the procedure of the study.

### **Research design**

Cross-sectional research design was used in the study.

### **Sampling technique**

A sample of 150 Mothers was taken from gynaecology and paediatric department of different hospitals of Rawalpindi and Islamabad through purposive sampling technique.

### **Inclusion criteria**

The following inclusion criteria was followed in the study.

1. Mothers who are 4 weeks to 1-year postpartum whether they belong to any age group, religion, ethnicity were included.

### **Exclusion criteria**

The following exclusion criteria were followed in the study.

1. Mothers who are unable to understand English or Urdu were excluded.
2. Mothers whose recent baby died right after birth were excluded

### **Instruments**

Following self-report instruments were used in the study.

### ***Demographic form***

Demographic Questionnaire was given in which participant's basic demographic data was taken which includes mother's age, Breastfeeding Behavior, socioeconomic status, employment status, family structure and the age of last-born child.

### ***Edinburgh Postnatal Depression Scale (Cox JL, 1987)***

Edinburgh Postnatal Depression scale (EPDS) is a self-reported scale containing 10-items that has been proven to be an efficient and effective method of identifying risk for "postpartum" depression. It was developed by Cox JL in 1987. Urdu translation is done by Syed Ali Wasif in 2001. The Cronbach  $\alpha$  of the original version of the scale is 0.84. Translated version of scale has  $\alpha$  reliability of .77.

Each item is scored on a four-point scale from 0 to 3, with higher scores indicating that the symptoms are more severe (Cox, et al., 1987). Items 3, 5, 6, 7, 8, 9, 10 are reversed scored. Scores less than 8 means no chances of depression. Score 9–11 means there are chances depression. Score 12–13 means high possibility of depression. Positive score (1, 2 or 3) on question 10 means suicidality risk.

### ***Perth Alexithymia Questionnaire (David A. Preece, 2018)***

Perth Alexithymia Questionnaire is an instrument, developed by David A. Preece in 2018. It has 24 items. Urdu translation of the scale has been translated in the current study using committee approach (WHO, 2022). Original PAQ scale version has 0.94 Cronbach alpha value. It has 5 subscales: negative difficulty identifying feelings (4-items), positive difficulty identifying feelings(4-items), negative difficulty describing things(4-items), positive difficulty describing things(4-items), and general-externally

orientated thinking(8-items). It is a Likert type scale with range 1-7 where 1 is strongly disagree and 7 is strongly agree, where high score indicates higher levels of Alexithymia.

***Scale translation (Perth Alexithymia Questionnaire)***

For this WHO translation guidelines were used (WHO, 2022). First original scale was translated by 4 bilinguals who had firm grip over English as well as Urdu language. They were provided with original version of scale and four independent translations were done for each item. Next, committee of 4 bilinguals settled upon 1 translation for each item by selecting the best translation out 4 translations. After refining and modifying all the items, they were compiled in form of Urdu Questionnaire. Once Urdu scale was made, it was further back translated by 4 bilinguals who had English as their mother language as well as had firm grip over Urdu language. It was then compared with original version of the scale and equivalence was achieved.

***Satisfaction With Life Scale (Carol Diener, 1985)***

Satisfaction With Life Scale is an instrument designed by Carol Diener in 1985 to assess overall perception and judgment of Life satisfaction in individuals. Urdu translation was done by Mussaffa Butt in 2014. Original version of scale has an internal consistency of 0.87. Translated version of scale has  $\alpha$  reliability of .90.

The scale has a Likert-type range of 1 to 7, with 1 denoting strongly disagree and 7 denoting strongly agree. Higher scores signify more satisfaction with life.

**Procedure**

Purposive sampling was done to recruit 150 women from gynaecology and paediatric departments of hospitals in Rawalpindi and Islamabad as well as through



online social media platform. After getting support letter from university, private hospitals were contacted through reference. In person data collection was done from hospitals which provided the permission for data. Participants were given brief introduction of the study. They were given informed consent form to ensure the agreement of participation in the research and then demographic sheet was provided to get the demographics of the participants.

They were provided with self-report questionnaire Edinburgh Postpartum Depression Scale (EPDS), Satisfaction With Life Scale (SWLS), Perth Alexithymia Questionnaire (PAQ). For online data collection google form was made on google document where brief introduction of study, informed consent form, demographic sheet and scales were included. The forms were shared in mother's groups on Facebook. They were specifically instructed that only mothers in 4 weeks to 1 year postpartum are allowed to fill the form. Scales were administered in both English and Urdu languages. After data collection data was analysed using SPSS

### **Ethical consideration**

This present study was conducted with the permission from Department of Psychology of Capital University of Science and Technology. Scales were used by the permission of authors. Permission for scale translation was taken from the author of original scale (see appendix G). Administrative approval from the hospitals was taken after receiving support letter from university department (see appendix H).

Respondents were briefed about rationale of the study and to make them aware how their information was further utilized. Consent form was taken for the participation in the study. Confidentiality of the participant was ensured by anonymizing the information obtained from data collection. Participants were given right to withdraw

from the study anytime. Ethical guidelines provided by American Psychological Association were carried out.

### **Statistical Analysis**

Statistical Package for Social Sciences (SPSS 21) was used for the analysis. Before analysing, data was entered in SPSS. After that data was cleaned. Then data was further analysed using this software.

For Distribution of data of categorical variables, descriptive statistics was used where frequency and percentages of demographic variables were found. For continuous variables, descriptive statistics were found where mean, median, mode, standard deviation, skewness, and kurtosis were computed. To check normality of data the value of skewness, kurtosis, Kolmogorov-Smirnov, and normal curve on histogram were analyzed.

Reverse items were recoded. Scales were computed. Cronbach's Alpha ( $\alpha$ ) reliability of Edinburgh Postpartum Depression Scale, Perth Alexithymia Questionnaire and Satisfaction With Life Scale was calculated.

Pearson Correlation was calculated to find the relationship between the independent variable (Alexithymia, and Life satisfaction) and the outcome variable (Postpartum Depression). Regression analysis was done to find the possible predictor of Postpartum Depression. Lastly, one way ANOVA was computed to find mean difference in Postpartum depression among women who breastfeed, bottle-feed or both.

### Pilot study

The sample for pilot study was 50 women who were 4 weeks to 1 year postpartum. They were given brief introduction of the study, informed consent, demographic sheet and scales to check if they are able to understand the questionnaires. Alpha reliability of scales were found to check if scales are reliable to use in the study. Analysis was carried out to test the hypotheses of the study.

#### Objective of pilot study

1. To determine the psychometric properties of the scales.
2. To find association between Alexithymia, Life Satisfaction and Postpartum Depression.

#### Descriptive and alpha reliability for pilot study

**Table 1**

*Descriptive statistics and alpha reliability of the measures (N=50)*

Measures	Items	$\alpha$	$M$	$SD$	Range		Skew	Kurt	K-S	$p$
					Actual	Potential				
EPDS	10	.76	24.4	5.18	10-38	10-40	.18	-.77	.11	.15
SWLS	05	.76	21.6	6.6	6-35	5-35	-.18	-.28	.08	.20
PAQ	24	.91	101.3	28.03	24-168	24-168	-.41	-.47	.10	.20

NOTE:  $M$  = mean,  $SD$  = Standard Deviation,  $\alpha$  = Alpha Reliability, Kurt = Kurtosis, Skew = Skewness, K-S = Kolmogorov – Smirnov, EPDS = Edinburgh Postpartum Depression Scale, SWLS - Satisfaction With Life Scale, PAQ = Perth Alexithymia Questionnaire.

Table 1 exhibits items, alpha reliabilities, mean, standard deviation, actual and potential ranges, skewness, kurtosis and K-S values for all the measures used in the study. EPDS

( $\alpha=.76$ ), SWLS ( $\alpha=.76$ ) and PAQ ( $\alpha=.91$ ) all three scales are reliable. Concerning the normality test and the value of skewness and kurtosis the data is normally distributed.

### Correlation Analysis for pilot study

**Table 2**

*Pearson correlation of Alexithymia and Life Satisfaction with Postpartum Depression among Pakistani Women (N= 50).*

Variables	N	M	SD	1	2	3
1.PPD	50	24.4	5.18	1	-	-
2.SWLS	50	21.6	6.6	-.30*	1	-
3.PAQ	50	101.3	28.03	.26*	.10	1

\*. Correlation is significant at 0.01 level (1- tailed)

Table 3 shows that Postpartum Depression has significant positive relationship with Alexithymia ( $r = .26, p = .000$ ). Postpartum Depression has a moderate negative significant relationship with Life Satisfaction ( $r = -.30, p = .02$ ). There is non-significant negative relationship between Alexithymia and Life Satisfaction ( $r = .10, p = .25$ ).

### **CHAPTER 3 - RESULTS**

In this chapter results findings of the study are presented in the form of frequency and percentages of demographic variables, descriptive statistics and alpha reliability of measures, correlation, and regression for testing the hypothesized relationship.

## Sample characteristics

**Table 3**

*Frequencies and percentages of demographic variables of the participants (N=150).*

Demographic Variable	<i>f</i>	%
Age of mother		
20 – 25 years	35	23.3
25 – 30 years	60	40.0
30 – 35 years	44	29.3
35 and above	11	07.3
Age of babies		
0 – 3 months	39	26.0
3 – 6 months	28	18.7
6 – 9 months	27	18.0
9 – 12 months	56	37.3
Socioeconomic Status		
Lower class	47	18.3
Middle class	75	50.0
Upper class	28	31.7
Employment status		
Working mother	54	36.0
Housewife	96	44.0
Family structure		
Nuclear family	89	59.7
Joint family	61	41.3
Breast feeding behavior		
Breastfeeding	53	35.3
Bottle-feed	51	34.0
Both	46	30.7

Note: *f* = Frequency, % = Percentage.

Table 3 exhibits the demographic variables and their frequency and percentage. The variable includes age of mother, age of baby, socioeconomic status, employment status and family structure. It shows that 25 – 30 ( $f = 60$ ,  $\% = 40$ ) years of mother has higher frequency than other age groups. Table also shows 9 – 12 months ( $f = 56$ ,  $\% = 37$ ) babies were higher in frequency than 0 – 3, 3 – 6 and 6 – 9 month. It shows middle class ( $f = 75$ ,  $\% = 50$ ) socioeconomic status was higher in frequency than lower (and upper class socio economic status. Table also shows housewife ( $f = 96$ ) as employment status has higher frequency than working mother with percentage of 44% and 36% respectively. It shows that nuclear family structure ( $f = 89$ ) had higher frequency than joint family structure ( $f = 61$ ) with percentages 59% and 41%. Lastly, frequency of breastfeeding ( $f = 53$ ,  $\% = 35$ ) was higher than frequency of bottle feed and both.

## Descriptive and reliability analysis

**Table 4**

*Descriptive statistics and alpha reliability of the measures (N=150)*

Measures	Items	$\alpha$	$M$	$SD$	Range		Skew	Kurt	K-S	$p$
					Actual	Potential				
EPDS	10	.72	24.5	5.1	10-38	10-40	.13	.005	.06	.20
SWLS	05	.72	20.9	6.1	6-35	5-35	-.13	-.21	.07	.50
PAQ	24	.93	100.5	29.0	24-168	24-168	-.16	.37	.04	.20

NOTE:  $M$  = mean,  $SD$  = Standard Deviation,  $\alpha$  = Alpha Reliability, Kurt = Kurtosis, Skew = Skewness, K-S = Kolmogorov – Smirnov, EPDS = Edinburgh Postpartum Depression Scale, SWLS - Satisfaction With Life Scale, PAQ = Perth Alexithymia Questionnaire.

Table 4 shows the item numbers, Alpha reliabilities, Mean, Standard Deviation, Skewness and Kurtosis of all the scales used in the present study. All three scales are reliable according to Nunnally and Bernstein's (1994) criteria, that is 0.7 and above alpha value means highly reliable which indicates EPDS ( $M = 24.5$ ,  $SD = 5.1$ ), SWLS ( $M = 20.9$ ,  $SD = 6.1$ ) and PAQ ( $M = 100.5$ ,  $SD = 28.0$ ) to be reliable. Table shows that according to skewness and kurtosis the data is normally distributed. Lastly, Kolmogorov-Smirnov was calculated because the sample size was more than 50. Its value is significant ( $>.05$ ) which also shows the data is normally distributed.

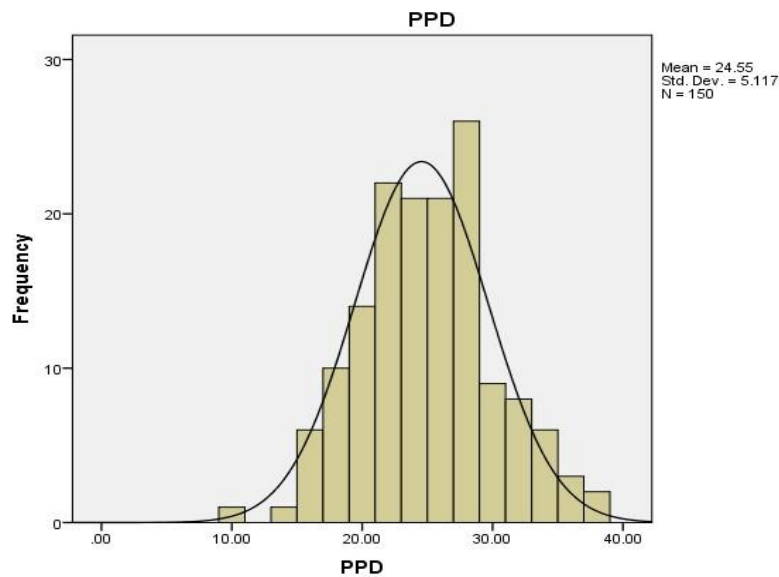


## Distribution curve

Following are the figures representing the shape of distribution curve for Edinburgh Postpartum Depression Scale (EPDS), Satisfaction With Life Scale (SWLS) and Perth Alexithymia Questionnaire (PAQ) where total number of participants (N) for all three measures is 150.

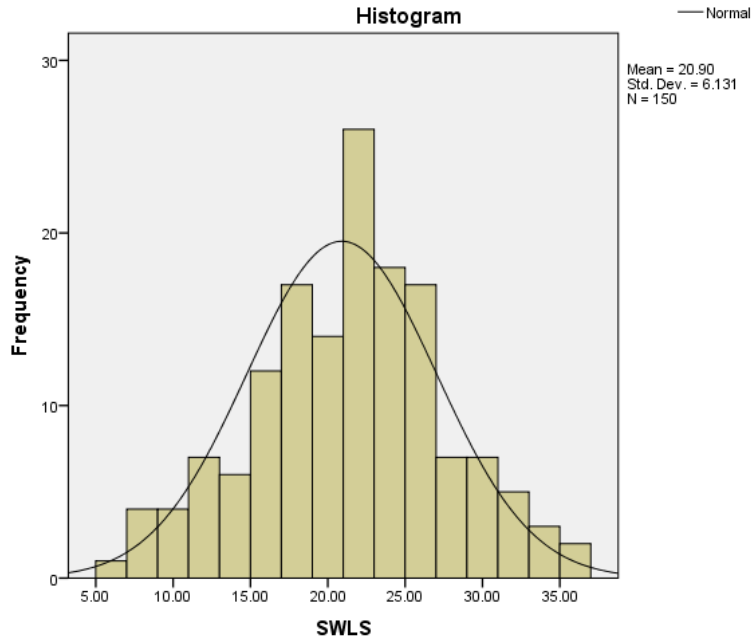
### Figure 1

*Distribution of scores for Edinburgh Postpartum Depression Scale (EPDS) (N = 150)*



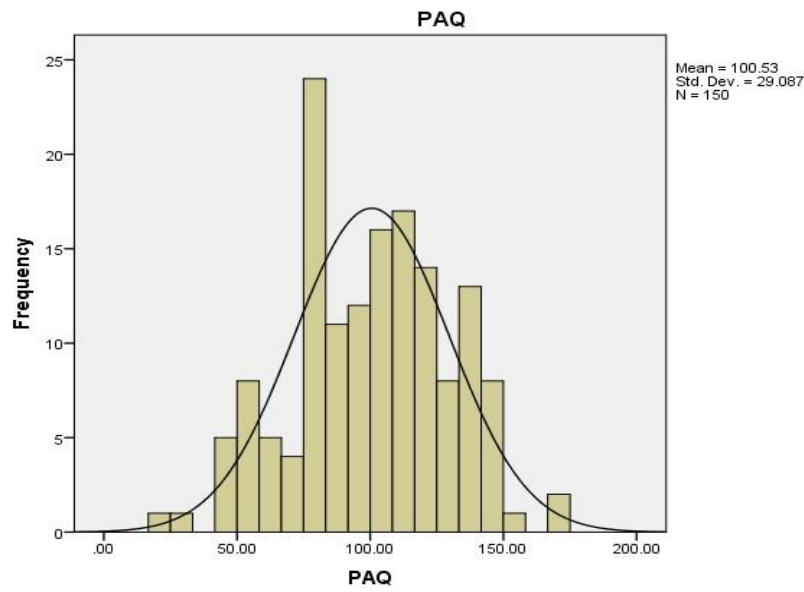
### Figure 2

*Distribution of scores for Satisfaction With Life Scale (SWLS) (N = 150)*



**Figure 3**

*Distribution of scores for Perth Alexithymia Questionnaire (PAQ) (N = 150)*



## Correlation Analysis

**Table 5**

*Pearson correlation of Alexithymia and Life Satisfaction with Postpartum Depression among Pakistani Women (N= 150).*

Variables	N	M	SD	1	2	3
1.PPD	150	24.5	5.1	1	-	-
2.PAQ	150	20.9	6.1	.37**	1	-
3.SWLS	150	100.5	29.0	-.36**	-.16	1

\*\**. Correlation is significant at 0.01 level (1- tailed)*

Table 5 shows that Postpartum Depression has a moderate positive significant relationship with Alexithymia ( $r = .37, p = .000$ ). Postpartum Depression has a moderate negative significant relationship with Life Satisfaction ( $r = .36, p = .000$ ). There is non-significant negative relationship between Alexithymia and Life Satisfaction ( $r = -.16, p = .05$ ).

## Multiple Regression Analysis

Before conducting Regression analysis, the assumptions of multiple regression were checked. Current study satisfies the assumptions of multiple regression. i.e., Dependent variables as well as the 2 independent variables are normally distributed and are continuous variables. Also, dependent variable has more than one predictor. There is independence of residual as assessed by Durbin Watson statistic of 2.02. As for multicollinearity all the tolerance value is greater than 0.1 and all the VIF values are less than 10. No significant outliers with standardized residual values more than  $\pm 3$ . To find out possible predictors of postpartum depression multiple regression analysis was carried out.

**Table 6**

*Regression analysis for Alexithymia and Life Satisfaction as possible predictors of Postpartum Depression (N=150)*

Variable	B	SE	95% CI		t	p
			LL	UL		
Constant	24.37	2.00	20.43	28.30	12.23	.000
Alex	.056	.01	.03	.08	4.36	.000
LS	-.26	.06	-.38	-.14	-4.28	.000

Note: Alex= Alexithymia, LS= Life Satisfaction, SE= Standard Error, CI= Confidence Interval, LL= Lower Limit, UL= Upper Limit.

Table 6 shows the result of multiple linear regression analysis which predict Postpartum Depression based on Alexithymia, and Life Satisfaction. A significant

regression equation was found  $F(2,147) = 22.20, p = .000$  with an R square of .23 shows 23% of the variance caused in Postpartum Depression by Alexithymia, and Life Satisfaction. The findings reveal that both Alexithymia and Life Satisfaction are significant predictors of Postpartum depression where Alexithymia is positive predictor ( $\beta = .32, p = .000$ ) while Life satisfaction is negative predictor ( $\beta = -.31, p = .000$ ) of postpartum depression.

### ANOVA Analysis

One way ANOVA was found to compare mean difference between three groups (breastfeeding, bottle-feeding or both) with respect to postpartum depression among Pakistani mothers.

**Table 7**

*Mean difference (ANOVA) in Postpartum depression among women who breastfeed, bottle-feed or both (N=150).*

Variable	Breastfeeding		Bottle feed		Both		<i>F</i> (2,147)	$\eta^2$
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
<i>PPD</i>	24.08	4.75	24.13	5.30	25.41	5.29	1.107	0.01

Note: *PPD*= Postpartum Depression, *M*= mean, *SD*= standard deviation,  $\eta^2$ = effect size

Table 7 shows mean, standard deviation, F value and effect size for postpartum depression across the three breastfeeding behaviours i.e., breastfeeding only, bottle-feed only or both. Results indicated non-significant mean difference with  $F(2,147) = 1.107$ ,  $p = .33$ . The value of  $\eta^2$  is 0.01 which shows very small effect size. This means mean difference between the three group is very small.

## CHAPTER 4 - DISCUSSION

Present study aims to find association between Alexithymia, Life Satisfaction and Postpartum Depression among Pakistani Women. 150 mothers from different households, living in Islamabad and Rawalpindi were taken for this research. At first frequency and percentage of categorical variables which includes mother's age, socioeconomic status, employment status, family structure and the age of last-born child was found. Then descriptives i.e., Mean, Standard Deviation, Skewness, Kurtosis, Kolmogorov-Smirnov, and alpha reliability analysis of the continuous variables was found.

Mother's age was divided into 4 categories i.e., 20-25 years, 25-30 years, 30-35 years and 35 years and above. There were 3 categories (lower class, middle class, and upper class) for socio economic status. The two categories of employment status were working mothers and housewives. Categories for family structure were joint family structure and nuclear family structure. Lastly, last born child's age were divided into 4 categories i.e., 1-3 months, 3-6 months, 6-9 months, and 9-12 months.

The alpha coefficients for all 3 scales were greater than .70, which indicated that the scales are reliable to use. The value of skewness and kurtosis were computed to confirm that the data was normally distributed. It is recommended that the value of skewness and kurtosis should be less than -1 and +1. The measures exceeding this limit are considered problematic is not considered as normally distributed (Cisar & Cisar, 2010). The data shows that the values of skewness and kurtosis are less than 1 for the scales used in the study. Further the normality of data was found using normal distribution on histogram. The figure 1,2 and 3 showed data from all three measures

was normally distributed. Kolmogorov-Smirnov value is significant ( $>.05$ ) which also shows the data is normally distributed.

After that Pearson correlation, multiple regression analysis and one way ANOVA was found to test the hypotheses of the current study. Pearson correlation revealed that Alexithymia has positive significant correlation with Postpartum Depression while Life Satisfaction has significant weak correlation with Postpartum Depression. On the other hand, Alexithymia has non-significant negative relationship with Life Satisfaction. Multiple regression analysis show that Alexithymia and Life Satisfaction are significant predictor of Postpartum Depression. The findings of One-way ANOVA revealed that there is no significant mean difference in Postpartum Depression in mothers who exclusively breastfeed, bottle-feed or do both.

Some findings of the study may contradict with the previous research due to some confounding variables and other factors. While most of the findings of this research are in lined with the previous research.

Following is the discussion based on research Hypotheses

➤ **Relationship between Postpartum Depression and Alexithymia among Pakistani women.**

It was hypothesized that there would be a significant positive relationship between Postpartum Depression and Alexithymia among Pakistani women. Results of Pearson correlation indicated that Postpartum Depression has a moderate positive significant relationship with Alexithymia. This means that if the Alexithymia increases in the mothers, then postpartum depression will increase and vice versa. Hence hypothesis 1 has been supported by research from the study that both the variables,



Alexithymia and Postpartum Depression have positive relationship with each other so as one variable increases the other also increases (Le et al., 2007).

A recent study conducted in 2021 revealed that there was a significant positive correlation of alexithymia with risk for postpartum depression, high-intensity anxiety, and depression in postpartum women (Stojanov et al., 2021) which also supports our current results that there is moderate significant positive relationship between Alexithymia and Postpartum depression among Pakistani Women.

There is no published study conducted in Pakistan to find association between Alexithymia and Postpartum depression during first 12 months after child's birth. Very few published research is done on these study variables globally. Due to limited research conducted on this topic the results are supported by very little evidence.

➤ **Relationship between Postpartum Depression and Life Satisfaction among Pakistani women.**

It was assumed that there will be a significant negative relationship between Postpartum Depression and Life Satisfaction among Pakistani women. Life Satisfaction is a general appraisal of an individual's day to day environments and an individual's condition throughout a particular timeframe. Life Satisfaction was as often as possible utilized as an equivalent word for joy, personal satisfaction, and different ideas. Besides, it is viewed as a significant part of positive Psychology. Individuals with higher life satisfaction would in general have more positive psychological states, which were related with less anxiety side effects and less pressure and depression.

To test this Hypotheses pearson correlation was used to test the association between Life Satisfaction and Postpartum Depression among Pakistani women.

According to results of the study correlation showed that Life Satisfaction of the mothers has a significant negative relationship with postpartum depression. This means that as the life satisfaction increases mothers become less prone to postpartum depression. It is evident from the results that with the increasing life satisfaction mothers face less postpartum depression in their life.

Results of the current study is supported by research conducted in Faisalabad, Pakistan which indicated that factors associated with postpartum depression include prenatal work-family stress, role discrepancy and intensity, and low life satisfaction (Yaqoob et al., 2020). According to findings from a different study, postnatal depression is linked to lower life satisfaction and poorer role quality (Hall & Long, 2007). Another study done in Karachi found a significant inverse association between postpartum depression scores and life satisfaction. Consequently, it appears that postpartum depression is significantly influenced by life satisfaction (Munaf & Siddiqui, 2013).

➤ **Relationship between Alexithymia and Life Satisfaction among Pakistani women.**

It was hypothesized that there would be a significant negative relationship between Alexithymia and Life Satisfaction among Pakistani women. Results of Pearson correlation indicated that Alexithymia has non-significant negative relationship with Life Satisfaction. This means that if the Alexithymia increases in the mothers, then life Satisfaction will decrease and vice versa. Hence hypothesis 3 has been supported by research from the study that both the variables, Alexithymia and Life Satisfaction has negative relationship with each other so as one variable increases the other also increases (Mattila et al., 2007).

In another study Logistic regression analyses revealed that four factors were independently associated with alexithymia: male gender, a low level of education, low life satisfaction and severe depression (Honkalampi et al., 1999). Mattila et al. found that individuals with alexithymia have low physical functioning, emotional problems, low energy, lower life Satisfaction, low social functioning, more pain and less public health (Mattila et al., 2007). The results from another study also showed that alexithymia was negatively correlated with life satisfaction in ADHD students and normal students (Allah-Gholilo et al.,2015). Difficulty communicating feelings and externally oriented thinking were negatively correlated with life satisfaction (Kauhanen et al, 1996).

➤ **Significant difference in Postpartum Depression among women who breastfeed, bottle-feed or both.**

It was hypothesized that there would be a significant relationship difference in Postpartum Depression among women who breastfeed, bottle-feed or both. Breastfeeding confers many health benefits for mothers and their infants (Lawrence, 2013). The guidelines specified by the World Health Organization (WHO), the American Academy of Paediatrics (AAP), and the European Commission for Public Health (ECPH) recommend exclusive breastfeeding in the first 6 months postpartum (American Academy of Paediatrics, 2012, EU Project on Promotion of Breastfeeding in Europe, 2008, World Health Organization, 2007).

Results of ANOVA indicated that Breastfeeding Behavior has non-significant mean difference with Postpartum Depression. Hence hypothesis 4 is supported by research from the study that both the variables, breastfeeding behavior and Postpartum

Depression are not related. A study revealed that there was no association between maternal depressive symptoms and the likelihood of breastfeeding (Chung et al., 2004).

Another study revealed that no relationship was found between diverse infant feeding outcomes at 1-week postpartum and the development of depressive symptomatology at 4 or 8 weeks (Dennis, C. L., & McQueen, K.,2007). no relationship between breastfeeding practice and either social support or depressive symptoms exists. (McKee et al., 2004; Chaudron et al., 2001).

## CONCLUSION

In recent time, postpartum depression has become an increasingly important issue. The present study aimed to find the association between Alexithymia, Life Satisfaction and Postpartum Depression among Pakistani Women. It has been concluded that there is a significant association between Alexithymia, Life Satisfaction and Postpartum Depression but there is no difference in Postpartum Depression on basis of Breastfeeding Behavior. This means that with the increase in Alexithymia the Postpartum Depression in new mothers also increase. Furthermore, with increase in Life Satisfaction, Postpartum Depression and Alexithymia in mothers decreases.

Although many women only experienced mild postpartum depression symptoms, other women are more susceptible when the symptoms are severe and last for an extended period. Mothers, newborns, and their families must deal with the terrible impacts of postpartum depression. For mothers who experience severe postpartum symptoms of depression, every single time when she experiences exhaustion, grief, worry, or stress during pregnancy or after giving birth, it is advised that she seek professional counselling and the appropriate medication.

## LIMITATIONS

In almost every research, no matter how well it is carried out, it has some limitations.

Following are some limitations of the study.

1. The sample was relatively small and non-representative of entire population. Where half of the data was collected through online social media platform, which might have affected the results of the study.
2. Self-report questions were used, it might have subjected to desirability bias as, people might have hesitated in answering honestly.

## **FUTURE RECOMMENDATIONS**

Considering the limitations of the present study. Following are some future recommendations for future research.

1. It is recommended that longitudinal study should be carry out to study the impact of postpartum depression on mother and baby in longer run as literature suggest Postpartum Depression led to child's developmental delay and weak mother-child interaction.
2. It is suggested that for future recommendations the sample size should be increased and if possible simple random sampling should be done to recruit the participants for the study.
3. This research was conducted solely by quantitative research method whereas in-depth interview method can be used to get better understanding of the factors that predict Postpartum Depression.

## IMPLICATIONS

Following are the implications of the study.

1. This research will contribute to help making schedules and policies regarding advanced screening procedure as a standard part of postnatal care, that should be developed and implemented to assess women for Postpartum Depression.
2. As the current study is focused on Postpartum depression, it would be beneficial for Government to make policies for appointing psychologists along with gynaecologists for post-natal counseling services.
3. This research will also be very helpful in creating awareness among families about post-natal mental health of new mothers. This will help husbands to change their attitude towards their wives' diet and proper check-up in this period. Moreover, this will also help in providence of emotional support needed by the mothers at this time.



## REFERENCES

- Aasheim, V., Waldenström, U., Rasmussen, S., Espehaug, B., & Schytt, E. (2014). Satisfaction with life during pregnancy and early motherhood in first-time mothers of advanced age: a population-based longitudinal study. *BMC pregnancy and childbirth, 14*(1), 1-9.
- Acharya, M., & Bennett, L. (1983). Women and the subsistence sector: Economic participation and household decision making in Nepal.
- Allah-Gholilo, K., Abolghasemi, A., Dehghan, H., & Imani, H. (2015). The association of alexithymia and sense of coherence with life satisfaction in attention deficit hyperactivity disorder. *Zahedan Journal of Research in Medical Sciences, 17*(4).
- Anjum, F., & Batool, Z. (2019). An analytical study of contributory factors of postpartum depression among women in Punjab, Pakistan. *Rawal Medical Journal, 44*(1), 130-130.
- Apfel, R. J., & Sifneos, P. E. (1979). Alexithymia: Concept and measurement. *Psychotherapy and psychosomatics, 32*(1-4), 180-190.
- Atif, M., Halaki, M., Raynes-Greenow, C., & Chow, C. M. (2021). Perinatal depression in Pakistan: A systematic review and meta-analysis. *Birth, 48*(2), 149-163.
- Badr, H. A., Zauszniewski, J. A., Quinn Griffin, M., Burant, C. J., Przeworski, A., Almutairi, W. M., & Alsharif, F. H. (2021). Effects of postpartum fatigue and depressive cognitions on life satisfaction and quality of life in Arab postpartum women: The intervening role of resourcefulness. *Nursing Reports, 11*(1), 84-94.
- Beck, C. T., & Indman, P. (2005). The many faces of postpartum depression. *Journal of Obstetric, Gynecologic, & Neonatal Nursing, 34*(5), 569-576.

- Beck, C.T. (2002). Theoretical perspectives of postpartum depression and their treatment implications. *Am J Maternal Child Nurs.*, 27: 282–7.
- Begg, C. B., & Mazumdar, M. (1994). Operating characteristics of a rank correlation test for publication bias. *Biometrics*, 1088-1101.
- Bener, A., Gerber, L. M., & Sheikh, J. (2012). Prevalence of psychiatric disorders and associated risk factors in women during their postpartum period: A major public health problem and global comparison. *International Journal of Women's Health*, 4: 191-200.
- Chaudron, L. H., Klein, M. H., Remington, P., Palta, M., Allen, C., & Essex, M. J. (2001). Predictors, prodromes and incidence of postpartum depression. *Journal of Psychosomatic Obstetrics & Gynecology*, 22(2), 103-112.
- Chung, E. K., McCollum, K. F., Elo, I. T., Lee, H. J., & Culhane, J. F. (2004). Maternal depressive symptoms and infant health practices among low-income women. *Pediatrics*, 113(6), e523-e529.
- Čisar, P., & Čisar, S. M. (2010). Skewness and kurtosis in function of selection of network traffic distribution. *Acta Polytechnica Hungarica*, 7(2), 95-106.
- Coreil, J. (1991). Maternal time allocation in relation to kind and domain of primary health care. *Medical Anthropology Quarterly*, 5(3), 221-235.
- Countrymeters.info. (2022). *Pakistan population (2022) live — Countrymeters*.  
<https://countrymeters.info/en/Pakistan>
- Denis, A., & Luminet, O. (2018). Cognitive factors and post-partum depression: What is the influence of general personality traits, rumination, maternal self-esteem, and alexithymia? *Clinical Psychology & Psychotherapy*, 25(2), 359-367.

- Dennis, C. L., & McQueen, K. (2007). Does maternal postpartum depressive symptomatology influence infant feed outcomes? *Acta paediatrica*, *96*(4), 590-594.
- Devin, R. B., & Erickson, P. I. (1996). The influence of male care givers on child health in rural Haiti. *Social Science & Medicine*, *43*(4), 479-488.
- Diener, E. (2012). New findings and future directions for subjective well-being research. *American psychologist*, *67*(8), 590.
- Diener, E., & Chan, M. Y. (2011). Happy people live longer: Subjective well-being contributes to health and longevity. *Applied Psychology: Health and Well-Being*, *3*(1), 1-43.
- Diener, E., Suh, E. M., Lucas, R. E., & Smith, H. L. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin*, *125*, 276-302.
- Diop, S., Turmes, L., Specht, C., Seehagen, S., Juckel, G., & Mavrogiorgou, P. (2022). Capacities for meta-cognition, social cognition, and alexithymia in postpartum depression. *Psychiatry Research*, *309*, 114430.
- Doan, R. M., & Popkin, B. M. (1993). Women's work and infant care in the Philippines. *Social Science & Medicine*, *36*(3), 297-304.
- Duggal, D., Sacks-Zimmerman, A., & Liberta, T. (2016). The impact of hope and resilience on multiple factors in neurosurgical patients. *Cureus*, *8*(10).
- Easterlin, R. A. (2006). Life cycle happiness and its sources: Intersections of psychology, economics, and demography. *Journal of economic psychology*, *27*(4), 463-482.
- Estinfort, W., Huang, J. P., Au, H. K., Lin, C. L., Chen, Y. Y., Chao, H. J., Chien, L. C., Lo, Y. C., & Chen, Y. H. (2022). Effects of prenatal subjective well-being on birth

outcomes and child development: A longitudinal study. *European psychiatry: the journal of the Association of European Psychiatrists*, 65(1), e77.

Field, T. (2017). Postpartum Depression Effects, Risk Factors and Interventions: A Review. *Clin Depress.*, 3 (122): 1-13.

Figueiredo, B., & Dias, C. C. (2015). Breastfeeding and depression: a systematic review of the literature. *Journal of affective disorders*, 171, 142-154.

Freyberger, H. (1977). Supportive psychotherapeutic techniques in primary and secondary alexithymia. *Psychotherapy and psychosomatics*, 28(1/4), 337-342.

Fukunishi, I., Kawamura, N., Ishikawa, T., Ago, Y., Sei, H., Morita, Y., & Rahe, R. H. (1997). Mothers' low care in the development of alexithymia: a preliminary study in Japanese college students. *Psychological reports*, 80(1), 143-146.

Gebuza, G., Kaźmierczak, M., Mieczkowska, E., Gierszewska, M., & Kotzbach, R. (2014). Life satisfaction and social support received by women in the perinatal period. *Advances in Clinical and Experimental Medicine*, 23(4), 611-619.

Ghanbarnejad, A., Abedini, S., & Taqipoor, L. (2014). Exclusive breastfeeding and its related factors among infants in Bandar Abbas city, Iran. *Journal of Babol University of Medical Sciences*, 16(1), 85-91.

Gulamani, S. S., Shahirose, P., Zeenatkhanu, K. & Syed, I. A (2013). Preterm Birth a Risk factor for postpartum depression in Pakistani women. *Open Journal of Depression*, 2 (4): 77-81.

- Hall, W. A. (2007). Relations among prenatal role quality, life satisfaction, and dual-earner parents' postnatal depression. *Journal of Prenatal & Perinatal Psychology & Health, 21*(3), 231.
- Hamdan, A., & Tamim, H. (2012). The relationship between postpartum depression and breastfeeding. *The International Journal of Psychiatry in Medicine, 43*(3), 243-259.
- Hatton, D. C., Harrison-Hohner, J., Coste, S., Dorato, V., Curet, L. B., & McCarron, D. A. (2005). Symptoms of postpartum depression and breastfeeding. *Journal of Human Lactation, 21*(4), 444-449.
- Heydarpour, S., Golboni, F., Heydarpour, F., & Timareh, M. (2011). Factors associated with exclusive breastfeeding in Kermanshah in 2007. *Journal of Kermanshah University of Medical Sciences, 15*(3).
- Honkalampi, K., Hintikka, J., Laukkanen, E., & Viinamäki, J. L. H. (2001). Alexithymia and depression: a prospective study of patients with major depressive disorder. *Psychosomatics, 42*(3), 229-234.
- Honkalampi, K., Hintikka, J., Tanskanen, A., Lehtonen, J., & Viinamäki, H. (2000). Depression is strongly associated with alexithymia in the general population. *Journal of psychosomatic research, 48*(1), 99-104.
- Honkalampi, K., Koivumaa-Honkanen, H., Hintikka, J., Antikainen, R., Haatainen, K., Tanskanen, A., & Viinamäki, H. (2004). Do stressful life-events or sociodemographic variables associate with depression and alexithymia among a general population?—a 3-year follow-up study. *Comprehensive psychiatry, 45*(4), 254-260.

- Honkalampi, K., Koivumaa-Honkanen, H., Lehto, S. M., Hintikka, J., Haatainen, K., Rissanen, T., & Viinamäki, H. (2010). Is alexithymia a risk factor for major depression, personality disorder, or alcohol use disorders? A prospective population-based study. *Journal of psychosomatic research*, *68*(3), 269-273.
- Honkalampi, K., Saarinen, P., Hintikka, J., Virtanen, V., & Viinamäki, H. (1999). Factors associated with alexithymia in patients suffering from depression. *Psychotherapy and psychosomatics*, *68*(5), 270-275.
- Hung, C. H. (2005). Women's postpartum stress, social support, and health status. *Western Journal of Nursing Research*, *27*(2), 148-159.
- Husain, N., Bevc, I., Husain, M., Chaudhry, I.B., Atif, N., & Abdul, R. (2006). Prevalence and social correlates of postnatal depression in a low-income country. *Arch Womens Ment Health.*, *9* (4): 197-202.
- Innis, S. M. (2003). Perinatal biochemistry and physiology of long-chain polyunsaturated fatty acids. *The Journal of pediatrics*, *143*(4), 1-8.
- Insaf, T. Z., Fortner, R. T., Pekow, P., Dole, N., Markenson, G., & Chasan-Taber, L. (2011). Prenatal stress, anxiety, and depressive symptoms as predictors of intention to breastfeed among Hispanic women. *Journal of Women's Health*, *20*(8), 1183-1192.
- Jain, S., & Choudhry, M. (1993). Mother surrogate and nutritional status of preschool children. *The Indian Journal of Pediatrics*, *60*(3), 429-433.
- Joukamaa, M., Kokkonen, P., Veijola, J., Läksy, K., Karvonen, J. T., Jokelainen, J., & Järvelin, M. R. (2003). Social situation of expectant mothers and alexithymia 31 years later in their offspring: A prospective study. *Psychosomatic Medicine*, *65*(2), 307-312.

- Kamau-Thuita, F., Omwega, A. M., & Muita, J. W. G. (2002). Childcare practices and nutritional status of children aged 0-2 years in Thika, Kenya. *East African medical journal*, 79(10), 524-529.
- Karukivi, M., Tolvanen, M., Karlsson, H., & Karlsson, L. (2015). Alexithymia and postpartum anxiety and depression symptoms: a follow-up study in a pregnancy cohort. *Journal of Psychosomatic Obstetrics & Gynecology*, 36(4), 142-147.
- Kauhanen J, Kaplan GA, Cohen RD, Julkunen J, Salonen JT. Alexithymia and risk of death in middle-aged men. *Psycho Res J*. 1996; **41**(6) : 541 -9
- Khatoon, A. (2007). *The impact of nuclear and joint family system on the academic achievement of secondary school students in Karachi.*
- Kooiman, C. G., van Rees Vellinga, S., Spinhoven, P., Draijer, N., Trijsburg, R. W., & Rooijmans, H. G. (2004). Childhood adversities as risk factors for alexithymia and other aspects of affect dysregulation in adulthood. *Psychotherapy and psychosomatics*, 73(2), 107-116.
- Lane, R. D., Sechrest, L., & Riedel, R. (1998). Sociodemographic correlates of alexithymia. *Comprehensive psychiatry*, 39(6), 377-385.
- Lawrence, R. M. (2013). Circumstances when breastfeeding is contraindicated. *Pediatric Clinics*, 60(1), 295-318.
- Le, H. N., Berenbaum, H., & Raghavan, C. (2002). Culture and alexithymia: Mean levels, correlates and the role of parental socialization of emotions. *Emotion*, 2(4), 341.

- Le, H. N., Ramos, M. A., & Munoz, R. F. (2007). The relationship between alexithymia and perinatal depressive symptomatology. *Journal of psychosomatic research*, 62(2), 215-222.
- Letourneau, N. L., Dennis, C. L., Benzies, K., Duffett-Leger, L., Stewart, M., Tryphonopoulos, P. D., ... & Watson, W. (2012). Postpartum depression is a family affair: addressing the impact on mothers, fathers, and children. *Issues in mental health nursing*, 33(7), 445-457.
- Luhmann, M., Lucas, R. E., Eid, M., & Diener, E. (2013). The prospective effect of life satisfaction on life events. *Social Psychological and Personality Science*, 4(1), 39-45.
- Lumley, M. A., Mader, C., Gramzow, J., & Papineau, K. (1996). Family factors related to alexithymia characteristics. *Psychosomatic Medicine*.
- Marcus, S. M. (2009). Depression during pregnancy: rates, risks and consequences-- Motherisk update 2008. *The Canadian Journal of Clinical Pharmacology*, 16 (1): e15-22
- Mason, O., Tyson, M., Jones, C., & Potts, S. (2005). Alexithymia: its prevalence and correlates in a British undergraduate sample. *Psychology and Psychotherapy: Theory, Research and Practice*, 78(1), 113-125.
- Mattila, A. K., Poutanen, O., Koivisto, A. M., Salokangas, R. K., & Joukamaa, M. (2007). Alexithymia and life satisfaction in primary healthcare patients. *Psychosomatics*, 48(6), 523-529.
- Mattila, A. K., Poutanen, O., Koivisto, A. M., Salokangas, R. K., & Joukamaa, M. (2008). The performance of diagnostic measures of depression in alexithymic and nonalexithymic subjects. *General hospital psychiatry*, 30(1), 77-79.



- McCarter-Spaulding, D., & Shea, S. (2016). Effectiveness of discharge education on postpartum depression. *MCN. The American journal of maternal child nursing*, 41(3), 168.
- McGillivray, L., Becerra, R., & Harms, C. (2017). Prevalence and demographic correlates of alexithymia: A comparison between Australian psychiatric and community samples. *Journal of clinical psychology*, 73(1), 76-87.
- McGuire, J. S., & Popkin, B. M. (1990). Helping women improve nutrition in the developing world: beating the zero-sum game. *The World Bank*.
- McKee, M. D., Zayas, L. H., & Jankowski, K. R. B. (2004). Breastfeeding intention and practice in an urban minority population: relationship to maternal depressive symptoms and mother–infant closeness. *Journal of reproductive and infant psychology*, 22(3), 167-181.
- Mohamed, N. A., Mahmoud, G. A., Said, N. A., Abdelhafez, H. A., & Maklof, A. M. A. (2011). Postpartum depression: Prevalence and predictors among women at El Eman's Specialized Hospital. *Journal of American Science*, 7(12): 122–128.
- Morikawa, M. (2015) Relationship between social support during pregnancy and postpartum depressive state: A prospective cohort study. *Sci. Rep.* 5, 1-5
- Munaf, S., & Siddiqui, B. (2013). Relationship of post-natal depression with life and marital satisfaction and its comparison in joint and nuclear family system. *Procedia-Social and Behavioral Sciences*, 84, 733-738.
- Muneer, A., Minhas, F. A., Nizami, A. T., Mujeeb, F., & Usmani, A. T. (2009). Frequency and associated factors for postnatal depression. *J Coll Physicians Surg Pak*, 19(4), 236-9.

- Murray, L., Stanley, C., Hooper, R., King, F., & Fiori-Cowley, A. (1996). The role of infant factors in postnatal depression and mother-infant interactions. *Developmental Medicine & Child Neurology*, 38(2), 109-119.
- Nemiah, J. C. (1976). Alexithymia: A view of the psychosomatic process. *Modern trends in psychosomatic medicine*, 3, 430-439.
- Nes, R. B., Røysamb, E., Tambs, K., Harris, J. R., & Reichborn-Kjennerud, T. (2006). Subjective well-being: genetic and environmental contributions to stability and change. *Psychological medicine*, 36(7), 1033-1042.
- Nielsen, D., Videbech, P., Hedegaard, M., Dalby, J., & Secher, N. J. (2000). Postpartum depression: identification of women at risk. *BJOG: An International Journal of Obstetrics & Gynaecology*, 107(10), 1210-1217.
- NORD - National Organization for Rare Disorders. (2020, August 3). *National Women's Health Information Center*.
- Olang, B., Heidarzadeh, A., Strandvik, B., & Yngve, A. (2012). Reasons given by mothers for discontinuing breastfeeding in Iran. *International breastfeeding journal*, 7(1), 1-7.
- Parker, J. D., Keefer, K. V., Taylor, G. J., & Bagby, R. M. (2008). Latent structure of the alexithymia construct: a taxometric investigation. *Psychological assessment*, 20(4), 385.
- Pinquart, M., & Sorensen, S., (2000). Influences of socioeconomic status, social network, and competence on subjective well-being in later life: A meta-analysis. *Psychology and Aging*, 15, 187-224.

- Pope, C. J. & Dwight, M. (2016). Breastfeeding and Postpartum Depression: An Overview and Methodological Recommendations for Future Research. *Depression Research and Treatment, 2016*: 1-9.
- Ramadhani, A. K., & Suryananda, A. (2022). Meta-Analysis: The Effect of Lactation Education by Midwives on Exclusive Breastfeeding Behavior in Mothers and Pregnant Women. *Journal of Health Promotion and Behavior, 7*(02), 86-96.
- Rau, A. (2015). Maternal Mortality in Pakistan.
- Rodman, S. (2017). Alexithymia: Does my partner feel anything? *Huffington Post*
- Rostamkhan, S., Mokhtari Lakeh, N., Asiri, S., & Kazemnezhad Leili, E. (2020). Breastfeeding status up to 2-year-olds and its' associated factors based on behaviors, attitudes, subjective norms, and enabling factors (BASNEF) model. *Journal of Holistic Nursing and Midwifery, 30*(1), 9-16.
- Salminen, J. K., Saarijärvi, S., Äärelä, E., Toikka, T., & Kauhanen, J. (1999). Prevalence of alexithymia and its association with sociodemographic variables in the general population of Finland. *Journal of psychosomatic research, 46*(1), 75-82.
- Shah, S., & Lonergan, B. (2017). Frequency of postpartum depression and its association with breastfeeding: A cross-sectional survey at immunization clinics in Islamabad, Pakistan. *Pakistan. J Pak Med Assoc, 67*(8), 1151-56.
- Shin, D. C., & Johnson, D. M. (1978). Avowed happiness as an overall assessment of the quality of life. *Social indicators research, 5*(1), 475-492.
- Sifneos, P. E. (1973). The prevalence of 'alexithymic' characteristics in psychosomatic patients. *Psychotherapy and psychosomatics, 22*(2-6), 255-262.

- Slomian, J., Honvo, G., Emonts, P., Reginster, J. Y., & Bruyère, O. (2019). Consequences of maternal postpartum depression: A systematic review of maternal and infant outcomes. *Women's Health, 15*, 1745506519844044.
- Stein, A., Pearson, R. M., Goodman, S. H., Rapa, E., Rahman, A., McCallum, M., ... & Pariante, C. M. (2014). Effects of perinatal mental disorders on the fetus and child. *The Lancet, 384*(9956), 1800-1819.
- Stojanov, J., Stankovic, M., Zikic, O., & Stojanov, A. (2021). The Relationship Between Alexithymia and Risk for Postpartum Depression. *Psychiatric Annals, 51*(9), 431-436.
- Sullivan, H. S. (ed) (1953). *The Interpersonal Theory of Psychiatry*. W. W. Norton, New York, USA.
- Taylor, G. J. (1994). The alexithymia construct: conceptualization, validation, and relationship with basic dimensions of personality. *New Trends in Experimental & Clinical Psychiatry*.
- Taylor, G. J. (2000). Recent developments in alexithymia theory and research. *The Canadian Journal of Psychiatry, 45*(2), 134-142.
- Taylor, G. J., Bagby, R. M., & Parker, J. D. (1999). Disorders of affect regulation: Alexithymia in medical and psychiatric illness. *Cambridge University Press*.
- Taylor, G. J., Bagby, R., & Parker, J. (1997). Disorders of affect regulation: Alexithymia in medical and psychiatric illness. 10.1017. *CBO9780511526831*.
- Taylor, P. D., Khan, I. Y., Armitage, J. A., Nathanielsz, P. W., & Poston, L. (2004). Developmental programming of the metabolic syndrome by maternal nutritional

imbalance: how strong is the evidence from experimental models in mammals? *The Journal of physiology*, 561(2), 355-377.

*The World Counts*. (2022). *The World Count*.  
<https://www.theworldcounts.com/challenges/toxic-exposures/polluted-bodies/how-many-babies-are-born-a-day/story>

Tucker, K., & Sanjur, D. (1988). Maternal employment and child nutrition in Panama. *Social Science & Medicine*, 26(6), 605-612.

Valkamo, M., Hintikka, J., Honkalampi, K., Niskanen, L., Koivumaa-Honkanen, H., & Viinamäki, H. (2001). Alexithymia in patients with coronary heart disease. *Journal of psychosomatic research*, 50(3), 125-130.

Valkamo, M., Hintikka, J., Niskanen, L., & Viinamaki, H. (2000, January). Depression and associated factors in coronary heart disease. In *NORDIC JOURNAL OF PSYCHIATRY* 2-4

Veenhoven, R. (1996). Developments in satisfaction research. *Social Indicators Research*, 37, 1-46.

Whiffen, V. E., & Susan, M. J (1998). An Attachment Theory Framework for the Treatment of Childbearing Depression. *Clinical Psychology: Science and Practice*, 5 (4): 478–493.

Wilson, D., & Hockenberry, M. J. (2014). Wong's clinical manual of pediatric nursing. *Elsevier Health Sciences*.

World Health Organization. (2022). WHODAS 2.0 Translation Package (version 1.0). Translation and linguistic evaluation protocol and supporting material.

Wu, H. C. (2011). The protective effects of resilience and hope on quality of life of the families coping with the criminal traumatising of one of its members. *Journal of Clinical Nursing, 20*(13-14), 1906-1915.

Yaqoob, N., Arshid, M., Jabbar, Z., & Fatima, K. (2020). Sadness along with happiness: depression and satisfaction with life among postpartum women in Faisalabad. *Health Psychology Research, 8*(3).

## **APPENDICES**

## Appendix A

### Information sheet

My name is Maryam Dawood, and I am currently doing my BS Psychology from Capital University of Science and Technology. As, prevalence of Postpartum Depression is increasing and there is little research done on this topic in Pakistan. In this research I am finding the **association between Alexithymia, life Satisfaction and Postpartum Depression among Pakistani Women**. Your participation is entirely voluntary, and you have right to discontinue at any point. Your responses will be kept confidential.

I would invite you to participate in the study.

### Further contact

Contact me at [maryamdawood0100@gmail.com](mailto:maryamdawood0100@gmail.com) if you have any questions or concerns. Thank you.

### معلوماتی پرچہ

میرا نام مریم داؤد ہے، اور میں فی الحال بی ایس سائیکالوجی کر رہی ہوں۔ جیسا کہ بچے کی پیدائش کے بعد ہونے والے ڈپریشن کا پھیلاؤ بڑھ رہا ہے اور پاکستان میں اس موضوع پر بہت کم تحقیق کی گئی ہے۔ اس تحقیق میں، میں پاکستانی خواتین میں، انگریزیتھیا، زندگی کی تسکین اور بعد از پیدائش ڈپریشن کے درمیان تعلق تلاش کر رہی ہوں اور میں آپ کو مطالعہ میں شرکت کی دعوت دوں گی۔ آپ کی شرکت مکمل طور پر رضا کارانہ ہے اور آپ کسی بھی وقت مطالعہ سے دستبردار ہونے کا حق رکھتے ہیں۔ آپ کے جواب رازدارانہ رکھے جائیں گے۔

مزید رابتہ

کسی سوال یا فکر کی صورت میں مجھ سے رابتہ کریں

[Maryamdawood0100@gmail.com](mailto:Maryamdawood0100@gmail.com)



## Appendix B

### Informed consent form

I confirm that I have read and understood the information sheet. My participation is entirely voluntary, and I have right to withdraw from the study any time. I give permission to use my information anonymously in the research. I agree to take part in the study.

Signature:

Date:

\_\_\_\_\_

\_\_\_\_\_

رضامندی فارم

میں تصدیق کرتی ہوں کہ میں نے معلوماتی پرچہ پڑھ اور سمجھ لیا ہے۔ میری شرکت مکمل طور پر رضاکارانہ ہے، اور مجھے کسی بھی وقت مطالعہ سے دستبردار

ہونے کا حق ہے۔ میں تحقیق میں اپنی معلومات کو گمنام طور پر استعمال کرنے کی اجازت دیتی ہوں۔ میں مطالعہ میں حصہ لینے پر راضی ہوں۔

\_\_\_\_\_ دستخط

\_\_\_\_\_ تاریخ

## Appendix C Demographic sheet

Please provide following information

**What is your age**

**What is your last Babies' age**

**Socioeconomic status**      Upper class      Middle class      Lower class

**Employment status**      Working mother      Housewife

**Family structure**      Nuclear family      Joint family

**Breastfeeding behavior**      Breastmilk      Formula milk      Both

فارم

برائے مہربانی درج ذیل تفصیلات فراہم کریں

آپ کی عمر کتنی ہے؟

آخری پیدا ہونے والے بچے کی عمر کتنی ہے؟

خاندانی حیثیت      اعلیٰ طبقہ / درمیانہ طبقہ / نیچلے طبقہ

کیا آپ کام کرتی ہیں؟      نہیں / ہاں

خاندانی نظام      انفریدی خاندان / مشترکہ خاندان

کیا آپ اپنے بچے کو دودھ پلاتی ہیں؟ دونوں / صرف بوتل دودھ / صرف ماں کا دودھ

## Appendix D

### Edinburgh Postpartum depression Scale

**In the past 7 days:**

**1. I have been able to laugh and see the funny side of things**

As much as I always could

Not quite so much now

Definitely not so much now

Not at all

**2. I have looked forward with enjoyment to things**

As much as I ever did

Rather less than I used to

Definitely less than I used to

Hardly at all

**3. I have blamed myself unnecessarily when things went wrong**

Yes, most of the time

Yes, some of the time

Not very often

No, never

**4. I have been anxious or worried for no good reason**

No, not at all

Hardly ever

Yes, sometimes

Yes, very often

**5. I have felt scared or panicky for no very good reason**

Yes, quite a lot

Yes, sometimes

No, not much

No, not at all

**6. Things have been getting on top of me**

Yes, most of the time I haven't been able to cope at all

Yes, sometimes I haven't been coping as well as usual

No, most of the time I have coped quite well

No, have been coping as well as ever

**7. I have been so unhappy that I have had difficulty sleeping**

Yes, most of the time

Yes, sometimes

Not very often

No, not at all

**8. I have felt sad or miserable**

Yes, most of the time

Yes, quite often

Not very often

No, not at all

**9. I have been so unhappy that I have been crying**

Yes, most of the time

Yes, quite often

Only occasionally

No, never

**10. The thought of harming myself has occurred**

Yes, quite often

sometimes

hardly ever

never

### Urdu Translated Version

پچھلے سات دنوں سے

1. چیزوں کے مزاحیہ رخ کو دیکھ کر میں ہنسنے کے قابل تھی:

a. جتنا میں ہمیشہ کر سکتا تھا۔

b. اب اتنا زیادہ نہیں۔

c. یقینی طور پر اب اتنا نہیں ہے۔

d. بالکل بھی نہیں

2. میں خوشی سے کسی چیز کے واقع ہونے کا انتظار کرتی ہوں:

a. جتنا میں نے کبھی کیا تھا۔

b. بلکہ پہلے سے کم

c. یقینی طور پر پہلے سے کم

d. شاید ہی بالکل

3. جب کچھ غلط ہو جائے تو میں اپنے آپ کو الزام دیتی ہوں:

a. ہاں، زیادہ تر وقت

b. ہاں، کچھ وقت

c. اکثر نہیں۔

d. کبھی نہیں

4. بغیر کسی معقول وجہ کے میں پریشان اور فکر مند رہی ہوں:

a. کوئی بالکل نہیں

b. شاید ہی کبھی

c. ہاں کبھی کبھی

d. ہاں، اکثر

5. میں نے بغیر کسی معقول وجہ کے خوف اور گھبراہٹ محسوس کی ہے:

a. ہاں، کافی حد تک

b. ہاں کبھی کبھی

c. نہیں، زیادہ نہیں۔

d. نہیں بالکل نہیں

6. چیزیں میرے سر پر سوار رہی ہیں:

a. ہاں، اکثر اوقات میں کئی چیزوں کو نپٹانے میں ناکام رہی ہوں

b. ہاں، کبھی کبھی میں پہلے کی طرح چیزوں کو نپٹانے میں ناکام رہی ہوں

c. نہیں، میں اکثر اوقات چیزوں کو اچھی طرح نہیں نپٹا سکی

d. نہیں، میں پہلے کی طرح ہی خوش اسلوبی سے نپٹتی رہی

7. میں اتنی ناخوش رہی ہوں کہ مجھے سونے میں دشواری پیش آتی رہی ہے

a. ہاں، زیادہ تر وقت

b. ہاں کبھی کبھی

c. اکثر نہیں۔

d. نہیں بالکل نہیں

8. میں نے خود کو غمگین اور افسردہ محسوس کیا ہے:

a. ہاں، زیادہ تر وقت

b. ہاں کبھی کبھی

c. اکثر نہیں۔

d. نہیں بالکل نہیں

9. میں اتنی زیادہ ناخوش رہی ہوں کہ میں روتی رہی ہوں:

a. ہاں، زیادہ تر وقت

b. ہاں، اکثر

c. صرف کبھی کبھار

d. کبھی نہیں

10. خود کو نقصان پہنچانے کا خیال میرے دل میں پیدا ہوا:

a. ہاں، اکثر

b. کبھی کبھی

c. شاید ہی کبھی

d. کبھی نہیں



## Appendix E

### Perth Alexithymia Questionnaire

This questionnaire asks about how you perceive and experience your emotions. Please score the following statements according to how much you agree or disagree that the statement is true of you. Circle one answer for each statement.

Strongly agree	Agree	Slightly agree	Neither agree nor disagree	Slightly disagree	Disagree	Strongly disagree
7	6	5	4	3	2	1

1. When I'm feeling bad, I can't find the right words to describe those feelings. \_\_\_\_
2. When I'm feeling bad, I can't tell whether I'm sad, angry, or scared. \_\_\_\_
3. I tend to ignore how I feel. \_\_\_\_
4. When I'm feeling good, I can't find the right words to describe those feelings. \_\_\_\_
5. When I'm feeling good, I can't tell whether I'm happy, excited, or amused. \_\_\_\_
6. I prefer to just let my feelings happen in the background, rather than focus on them.  
\_\_\_\_
7. When I'm feeling bad, I can't talk about those feelings in much depth or detail.  
\_\_\_\_
8. When I'm feeling bad, I can't make sense of those feelings \_\_\_\_
9. I don't pay attention to my emotions. \_\_\_\_
10. When I'm feeling good, I can't talk about those feelings in much depth or detail \_\_\_\_
11. When I'm feeling good, I can't make sense of those feelings. \_\_\_\_
12. Usually, I try to avoid thinking about what I'm feeling. \_\_\_\_
13. When something bad happens, it's hard for me to put into words how I'm feeling.  
\_\_\_\_
14. When I'm feeling bad, I get confused about what emotion it is. \_\_\_\_

15. I prefer to focus on things I can see or touch, rather than my emotions\_\_\_\_\_
16. When something good happens, it's hard for me to put into words how I'm feeling.  
\_\_\_\_\_
17. When I'm feeling good, I get confused about what emotion it is\_\_\_\_\_
18. I don't try to be 'in touch' with my emotions. \_\_\_\_\_
19. When I'm feeling bad, if I try to describe how I'm feeling I don't know what to say.  
\_\_\_\_\_
20. When I'm feeling bad, I'm puzzled by those feelings. \_\_\_\_\_
21. It's not important for me to know what I'm feeling\_\_\_\_\_
22. When I'm feeling good, if I try to describe how I'm feeling I don't know what to say. \_\_\_\_\_
23. When I'm feeling good, I'm puzzled by those feelings. \_\_\_\_\_
24. It's strange for me to think about my emotions\_\_\_\_\_

### Urdu translated version

یہ سوالنامہ اس بارے میں پوچھتا ہے کہ آپ اپنے جذبات کو کیسے سمجھتے اور تجربہ کرتے ہیں۔ براہ کرم درج ذیل بیانات کو اس حساب سے پر کریں کہ آپ

اس بات سے کتنے متفق یا مخالف ہیں۔ ہر بیان کے لیے ایک جواب کا دائرہ بنائیں

1	2	3	4	5	6	7
بہت اختلاف کرتا ہوں	اختلاف کرتا ہوں	تھوڑا کرتا اختلاف ہوں	نہ اتفاق نہ اختلاف کرتا ہوں	تھوڑا اتفاق کرتا ہوں	اتفاق ہوں کرتا	سے بہت اتفاق کرتا ہوں

1 \_\_\_\_\_ جب میں برا محسوس کرتی ہوں تو میں ان احساسات کو الفاظ میں بیان نہیں کر پاتی۔

2 \_\_\_\_\_ جب میں برا محسوس کرتی ہوں تو میں یہ نہیں بتا سکتی کہ میں اداس ہوں ناراض ہوں یا خوفزدہ ہوں

3 \_\_\_\_\_ میں اکثر اپنے احساسات کو نظر انداز کرتی ہوں

- 4 \_\_\_ جب میں اچھا محسوس کرتی ہوں تو میں ان احساسات کو الفاظ میں بیان نہیں کر پاتی
- 5 \_\_\_ جب میں اچھا محسوس کرتی ہو تو میں یہ نہیں بتا سکتی کہ میں خوش ہوں بہت خوش ہوں یا پر جوش ہوں
- 6 \_\_\_ میں اپنے جذبات پر توجہ دینے کے بجائے انہیں پس منظر میں رکھنا پسند کرتی ہوں
- 7 \_\_\_ جب میں برا محسوس کرتی ہوں تو میں ان احساسات کے بارے میں زیادہ گہرائی یا تفصیل سے بات نہیں کر سکتی
- 8 \_\_\_ جب میں برا محسوس کرتی ہوں تو میں وہ احساسات سمجھ نہیں سکتی
- 9 \_\_\_ میں اپنے جذبات پر توجہ نہیں دیتی
- 10 \_\_\_ جب میں اچھا محسوس کرتی ہوں تو ان احساسات کے بارے میں زیادہ گہرائی یا تفصیل سے بات نہیں کر سکتی
- 11 \_\_\_ میں جب میں اچھا محسوس کرتی ہوں تو میں وہ احساسات سمجھ نہیں سکتی
- 12 \_\_\_ میں عام طور پر یہ سوچنے کی کوشش نہیں کرتی کہ میں کیسا محسوس کر رہی ہوں
- 13 \_\_\_ جب کچھ برا ہوتا ہے تو میرے لئے الفاظ میں بیان کرنا مشکل ہوتا ہے کہ میں کیسا محسوس کر رہی ہوں
- 14 \_\_\_ جب میں برا محسوس کرتی ہوں تو میں الجھ جاتی ہوں کہ یہ کیسے جذبات ہیں
- 15 \_\_\_ جذبات کے بجائے ان چیزوں میں توجہ دیتی ہوں جن کو میں حقیقت میں دیکھ یا چھو سکوں
- 16 \_\_\_ جب کچھ اچھا ہوتا ہے تو میرے لئے الفاظ میں بیان کرنا مشکل ہوتا ہے کہ میں کیسا محسوس کر رہی ہوں
- 17 \_\_\_ جب میں برا محسوس کرتی ہو تو میں الجھ جاتی ہوں کہ یہ کیسے جذبات ہیں
- 18 \_\_\_ میں اپنے جذبات کے ساتھ جڑے رہنے کی کوشش نہیں کرتی
- 19 \_\_\_ جب مجھے برا لگتا ہے تو میرے لیے بتانا مشکل ہوتا ہے کہ میں کیسا محسوس کر رہی ہوں
- 20 \_\_\_ جب میں برا محسوس کرتی ہوں تو میں اپنے احساسات میں الجھ جاتی ہوں کہ یہ کیسے جذبات ہیں

21\_\_\_ میرے لئے یہ جاننا اہم نہیں ہے کہ میں کیسا محسوس کر رہی ہوں

22\_\_\_ جب مجھے اچھا لگتا ہے تو میرے لیے بتانا مشکل ہوتا ہے کہ میں کیسا محسوس کر رہی ہوں

23\_\_\_ جب میں اچھا محسوس کرتی ہوں تو میں اپنے احساسات میں الجھ جاتی ہوں کہ یہ کیسے جذبات ہیں

24\_\_\_ میرے لئے اپنے جذبات کے بارے میں سوچنا عجیب ہے

## Appendix F

### Satisfaction With Life Scale

Using the 1 - 7 scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item.

Strongly agree	Agree	Slightly agree	Neither agree nor disagree	Slightly disagree	Disagree	Strongly disagree
7	6	5	4	3	2	1

1. \_\_\_\_ In most ways my life is close to my ideal.
2. \_\_\_\_ The conditions of my life are excellent.
3. \_\_\_\_ I am satisfied with my life.
4. \_\_\_\_ So far, I have gotten the important things I want in life.
5. \_\_\_\_ If I could live my life over, I would change almost nothing.

### Urdu translated version

مندرجہ ذیل جملوں کو پڑھیں، ان کی مناسبت سے موذکوں عبارت کا انتخاب کریں۔ منتخب عبارت کے عدد پر نشان لگا کر اپنی رائے کا اظہار کریں۔

1	2	3	4	5	6	7
بہت اختلاف کرتا ہوں	اختلاف کرتا ہوں	تھوڑا اختلاف کرتا ہوں	نہ اتفاق نہ اختلاف کرتا ہوں	تھوڑا اتفاق کرتا ہوں	اتفاق ہوں کرتا	سے بہت اتفاق کرتا ہوں

1. \_\_\_\_ بہت سے طریقوں / راستوں میں میری زندگی، مثالی زندگی کے قریب ہے۔

2. \_\_\_\_ میری زندگی کے حالات بہترین ہیں

3. \_\_\_\_ میں اپنی زندگی سے مطمئن ہوں

4. \_\_\_\_ ابھی تک میں نے زندگی میں ہر ضروری یا اہم چیز حاصل کی ہے

5. \_\_\_\_ اگر میں اپنی زندگی اور جی سکا، تو میں اسے بالکل بدلنا نہیں چاہوں گا۔

## Appendix G

### Permission grant from authors of the scales

#### Edinburgh Postpartum Depression Scale (EPDS)

REQUEST FOR PERMISSION GRANT [Inbox x](#)

🔍 🖨️ 📧



**maryam dawood**

Dear Miss/Sir I hope this email finds you in good health. I am a student of Capital University of Science and Technology (CUST), Islamabad Pakistan. I am curren

11 Sept 2022, 22:36



**Philipson, Gavin** <Gavin.Phippison@nhslothian.scot.nhs.uk>

to Scotland, Selena, Vikki, me

5 Oct 2022, 16:20

☆ ↩️ ⋮

Hi Susan

I don't think permission is needed if the original paper is referenced. This is what was at the bottom of the EPDS I looked at -

*Please note: Users may reproduce this scale without further permission providing they respect the copyright (which remains with the British Journal of Psychiatry), quote the names of the authors and include the title and the source of the paper in all reproduced copies. Cox, J.L., Holden, J.M. and Sagovsky, R. (1987). Detection of postnatal depression: Development of the 10-item Edinburgh Postnatal Depression Scale. British Journal of Psychiatry, 150, 782-786.*

Regards

Gavin

Dr Gavin Philipson  
Consultant Perinatal Psychiatrist  
NHS Lothian Perinatal Community Mental Health Team  
Block 1/2 The Residencies (Ground Floor)  
St. John's Hospital

#### Perth Alexithymia Questionnaire (PAQ)

REQUEST FOR PERMISSION GRANT [Inbox x](#)

🔍 🖨️ 📧



**maryam dawood**

Respected Rodrigo Becerra I hope this email finds you in good health. I am a student of Capital University of Science and Technology (CUST), Islamabad Pakistan

Tue, 13 Sept, 15:03



**Rodrigo Becerra** <rodrigo.becerra@uwa.edu.au>

to me

Tue, 13 Sept, 15:58

☆ ↩️ ⋮

Dear Maryam,  
Please feel free to translate the PAQ. Please send us copy once is translated for our records.  
Good luck with your studies  
Kind regards  
Rodrigo

*Associate Professor Rodrigo Becerra*  
Clinical Psychologist  
Clinic Director (Robin Winkler Clinic)  
Room G.17 (Main Building) School of Psychological Science (M304)  
The University of Western Australia  
35 Stirling Highway  
CRAWLEY WA 6009  
E: [rodrigo.becerra@uwa.edu.au](mailto:rodrigo.becerra@uwa.edu.au)  
Lab website: <https://emotionpsychopathologylab.com/people/>  
P: +61 8 6488 3251

#### Satisfaction With Life Scale (SWLS)



**Diener, Carol I** <cdiener@illinois.edu>

to me

10 Sept 2022, 02:46

☆ ↩️ ⋮

see [dddiener.com](http://dddiener.com) for translations

**From:** maryam dawood <[maryamdawood0100@gmail.com](mailto:maryamdawood0100@gmail.com)>  
**Sent:** Friday, September 9, 2022 8:21 AM  
**To:** Diener, Carol I <[cdiener@illinois.edu](mailto:cdiener@illinois.edu)>  
**Subject:** REQUEST FOR PERMISSION GRANT


\*\*\*

Respected Carol Diener!

I hope this email finds you in good health.

## Appendix H

### Support letter for data collection



**C.U.S.T.**  
Capital University of Science & Technology  
Islamabad

Islamabad Expressway, Kahuta Road,  
Zone - V, Islamabad, Pakistan  
Telephone : +92-51-111-555-666  
Fax : +92-51-4486700  
Email : info@cust.edu.pk  
Website : www.cust.edu.pk

Ref. CUST/IBD/PSY/Thesis-217  
October 21, 2022

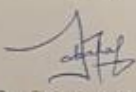
**TO WHOM IT MAY CONCERN**

Capital University of Science and Technology (CUST) is a federally chartered university. The university is authorized by the Federal Government to award degrees at Bachelor's, Master's and Doctorate level for a wide variety of programs.

**Ms. Maryam Dawood**, registration number **BSP191012** is a bona fide student in BS Psychology program at this University from Spring 2019 till date. In partial fulfillment of the degree, she is conducting research on "Association between alexithymia, breastfeeding behavior, life satisfaction and postpartum depression among Pakistani women". She is required to collect data from your institute.

Your cooperation is highly appreciated. Please feel free to contact undersigned, if you have any query in this regard.

Best Wishes,



**Dr. Sabahat Haqqani**  
Head, Department of Psychology  
Ph no. 111-555-666 Ext: 178  
sabahat.haqqani@cust.edu.pk

## ORIGINALITY REPORT

<b>18%</b>	<b>15%</b>	<b>10%</b>	<b>5%</b>
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

## PRIMARY SOURCES

<b>1</b>	<b>www.researchgate.net</b> Internet Source	<b>3%</b>
<b>2</b>	<b>www.ncbi.nlm.nih.gov</b> Internet Source	<b>2%</b>
<b>3</b>	<b>Submitted to Higher Education Commission Pakistan</b> Student Paper	<b>2%</b>
<b>4</b>	<b>www.aseanjournalofpsychiatry.org</b> Internet Source	<b>1%</b>
<b>5</b>	<b>psy.psychiatryonline.org</b> Internet Source	<b>1%</b>
<b>6</b>	<b>prr.hec.gov.pk</b> Internet Source	<b>1%</b>
<b>7</b>	<b>eprints.mdx.ac.uk</b> Internet Source	<b>1%</b>
<b>8</b>	<b>en.wikipedia.org</b> Internet Source	<b>&lt;1%</b>
<b>9</b>	<b>Nor Zuraida Zainal. "Prevalence of postpartum depression in a hospital setting</b>	<b>&lt;1%</b>