

**PREVALENCE OF PERINATAL MOOD AND
ANXIETY DISORDERS AMONG
INTERNALLY DISPLACED PERSONS: A
COMPARATIVE STUDY**

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**ASIA e UNIVERSITY
2024**

PREVALENCE OF PERINATAL MOOD AND ANXIETY DISORDERS
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A Thesis Submitted to Asia e University in
Fulfilment of the Requirements for the
Degree of Doctor of Philosophy

July 2024

ABSTRACT

This study investigates the prevalence and severity levels of peripartum mood and anxiety disorders among two populations, namely, non-displaced population and the internally displaced population. It's a case study in the camp for internally displaced persons in Khyber Pakhtunkhwa, Pakistan, which is undertaken through a cross-sectional comparative study in both populations. The study's samples comprised 400 women of reproductive age: 100 pregnant and 100 postnatal nondisplaced women, 100 pregnant and 100 postnatal internally displaced women. The data are analyzed by a convergent of mixed quantitative and qualitative methodologies with screening tools including the Patient Health Questionnaire-9 (PHQ-9), Edinburgh Postnatal Depression Scale (EPDS), Generalized Anxiety Disorder-7 (GAD-7), Perinatal Anxiety Screening Scale (PASS), and Mood Disorder Questionnaire (MDQ). Seven Focus group discussions (FGDS) were conducted in Pushto, involving 57 perinatal internally displaced women. Quantitative data were analyzed using SPSS-version 29.0, while qualitative data underwent thematic-content analysis. The findings reveals that a higher prevalence of Perinatal Mood and Anxiety Disorders (PMADS) is among internally displaced women compared to their nondisplaced counterparts. For depression, 72% of internally displaced pregnant women and 54% of nondisplaced pregnant women are affected, with postnatal depression rates at 90% and 78%, respectively. Additionally, bipolar disorder symptoms were observed in 15% of internally displaced pregnant women, and 8% of non-displaced pregnant women. Perinatal anxiety disorders are significantly higher among internally displaced women, with 36% of internally displaced pregnant women and 12% of nondisplaced pregnant women affected. Among postnatal women, 19% of internally displaced and 6% of nondisplaced women experience perinatal anxiety disorder. The collected data demonstrated reliability, confirmed by Cronbach's Alpha Statistics. Moreover, the statistical t-test analysis revealed significant differences as well. Focus group discussions (FGDS) revealed high awareness and prevalence of perinatal mood and anxiety disorders among internally displaced women, with significant triggers and coping mechanisms identified. Perinatal Mood and Anxiety Disorders (PMADS) were more prevalent and severe in internally displaced women compared to non-displaced women. Key risk factors include obstetric complications, trauma, economic instability, and stigma. Culturally responsive, trauma-informed care is essential for internally displaced women.

Keywords: Perinatal Mood and Anxiety Disorders (PMADs), Internally Displaced Population (IDPs), Edinburgh Postnatal Depression Scale (EPDS), Perinatal Anxiety Screening Scale (PASS), Mood Disorder Questionnaire (MDQ)

APPROVAL

This is to certify that this thesis conforms to acceptable standards of scholarly presentation and is fully adequate, in quality and scope, for the fulfilment of the requirements for the Degree of Doctor of Philosophy.

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DECLARATION

I hereby declare that the thesis submitted in fulfilment of the requirements for the Degree of Doctor of Philosophy is my own work and that all contributions from any other persons or sources are properly and duly cited. I further declare that the material has not been submitted either in whole or in part, for a degree at this or any other university. In making this declaration, I understand and acknowledge any breaches in this declaration constitute academic misconduct, which may result in my expulsion from the programme and/or exclusion from the award of the degree.

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ACKNOWLEDGEMENTS

My PhD journey has provided me with experiences and learning that exceeded my academic and research skills. My role as a PhD student within Asia-e-University has given me opportunities to learn from and collaborate with giants in the field of Research in Social & Behavioral Science, vis-à-vis in Psychology including my supervisor, Professor Dato' Paduka Haji Dr Mohamed Anwar Bin Omar Din who has been a mentor and a role model for distinction. I'm very grateful for his mentorship, learning and opportunities bolstered my PhD study into a fully rounded academic and research experience. I'm also grateful to Dr Ghulam Saqlain, ENT specialist, my mentor who provided guidance, support and assistance to me throughout my research study. I'd also like to thank my friends Dil Jan, Sheema Syed, and Dr. Jehan Zeb for their assistance, guidance, encouragement and support at every step of my PhD journey. I'm particularly grateful to my parents, Mr. Hamid Ullah and Zainab Khatoon who always provided encouragement, support and space for me to write this dissertation, and to my siblings who've walked every step of my PhD journey with me and have provided support and encouragement daily. Most importantly to the research participants, the Medical-superintendents and other service-providers in the Bakakhel Camp and other healthcare facilities at Bannu, thanks for making this study possible.

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LIST OF ABBREVIATION

AeU	Asia e University
APA	American Psychological Association
BD	Bipolar Disorders
BHU	Basic Health Units
CAR	Commissionerate for Afghan Refugees
DSM-5	Diagnostic Statistical Manual-5th Addition
EPDS	Edinburgh Postpartum Depression Scale
FGDs	Focus Group Discussions
GAD-7	Generalized Anxiety Disorder 7
IDPs	Internally Displaced Persons
KPK	Khyber Pakhtunkhwa
NGOs	Non-Governmental Organizations
OCD	Obsessive Compulsive Disorders
GAD-7	Generalized Anxiety Disorders-7
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)
MDQ	Mood Disorder Questionnaire
PASS	Perinatal Anxiety Screening Scale
PHQ-9	Patient Health Questionnaire-9
PMAD	Perinatal Mood and Anxiety Disorders
PND	Postnatal Disorder
PPD	Peri-partum Depression
PTSD	Post-Traumatic Stress Disorders
SGS	School of Graduate Studies
SPSS	Statistical Package for the Social Sciences

THQ	Tehsil Head Quarter
UNFPA	United Nations Population Fund
UNHCR	United Nations High Commissioner for Refugees

CHAPTER 1

INTRODUCTION

1.0 Background of Study

Mental Health disorders are defined and categorized by Diagnostic and Statistical Manual of Mental Disorders- Fifth Edition (DSM-5).

According to DSM-5 mental health disorders can be defined as a cluster of behavioral or psychological symptoms or pattern causing psychobiological dysfunctions resulting a clinically significant distress or disability or impairment in one or more areas of functioning (DSM 5th edition, 2013).

Perinatal mood and anxiety disorders (PMADs):

From the author's own experience in field of psychosocial support and counselling services for internally displaced persons (IDPs) or afghan refugee in the IDP camps or in refugee villages has found that women in reproductive age may usually experience perinatal anxiety and mood disorders. For many families 9-months' time period of pregnancy and child birth is most exciting and celebrating time. However, these periods can be profoundly affected by perinatal mood and anxiety disorders, which disrupt the well-being of both women and their families. Research indicates that one in seven women experiences perinatal depression, a prevalent psychiatric condition (Wisner et al., 2013). Similarly, a substantial proportion of women face perinatal anxiety disorders, with prenatal anxiety affecting 13% to 21% of women and postpartum anxiety ranging from 11% to 17% (Fairbrother et al., 2015). Untreated perinatal mood and anxiety disorders can have adverse effects not only on the mothers but also on their children, highlighting the

urgent need for early identification and intervention. Perinatal mood and anxiety disorders (PMADs) are frequently underdiagnosed and inadequately treated in primary health care settings. In the United States, fewer than 50% of women with perinatal depression are accurately diagnosed. Of these, 41% are identified with prenatal depression, while 29% to 43% are diagnosed with postpartum depression (Milgrom et al., 2015).

The challenges in recognizing PMADs often stem from discrepancies in the clinical presentation of conditions such as depression, anxiety, mania, or psychosis. Additionally, the overlap of PMAD symptoms, such as changes in sleep patterns, energy levels, appetite, and libido, with the Non-displaced physiological changes of pregnancy complicates diagnosis (Taylor, 2020).

Perinatal depression, defined as a major depressive episode occurring during pregnancy or within four weeks postpartum, is characterized by persistent sadness or anhedonia, accompanied by at least five associated depressive symptoms over a two-week period, significantly impairing daily functioning (APA, 2013).

Symptoms of Perinatal Mood and Anxiety Disorders:

Perinatal Mood and Anxiety Disorders (PMADs) present with a range of symptoms, including low mood, overwhelming fear, feelings of emptiness, crying spells, panic attacks, severe fatigue, and a lack of interest in daily activities. Additional symptoms may involve avoidance behaviors, self-doubt, disturbed sleep and eating patterns, guilt, helplessness, hopelessness, irritability, aggressiveness, and difficulty concentrating or making decisions (Tiffany, Willis, et al., 2018). PMADs cover a broad spectrum of conditions based on symptomatology and diagnostic criteria, including depression, anxiety, obsessive-compulsive disorder (OCD), post-

traumatic stress disorder (PTSD), bipolar disorder (BD), and psychosis (Tiffany, Willis, et al., 2018).

Perinatal Anxiety Disorders:

Anxiety disorder which is characterized with the features of recurring, excessive, and obsessions causing significant distress and leads to compulsive behaviors or mental acts which are executed for suppressing and neutralizing the excessive, unreasonable and adaptive thoughts featured with a common element of the avoidance of related situations to obsessions is Obsessive Compulsive Disorder (OCD). (American Psychiatric Association [DSM-IV-TR], 2000).

The clinical depiction of OCD (obsessive-compulsive disorder) is extremely varied, including obsessions such as fears of contamination, excessive doubt, symmetry, aggression, sexual thoughts, and religious concerns. Compulsive behaviors associated with these obsessions often involve cleaning, repetitive checking, counting, praying, or silently repeating words. These symptoms can be categorized into four main types: obsessions with symmetry and ordering, aggressive thoughts paired with repetitive checking, contamination fears accompanied by compulsive cleaning, and preoccupations leading to repetitive actions (Bloch et al., 2008). Research indicates that OCD symptoms are more likely to emerge in women during pregnancy compared to the general population. Studies (Sidhu et al., 2019) highlight a connection between significant life events, such as pregnancy and childbirth, and the onset of OCD symptoms. Obsessive compulsive disorder that occurs during the pregnancy or after childbirth is called Perinatal Obsessive Compulsive Disorder. Pregnancy can trigger the onset or worsen existing symptoms of obsessive-compulsive disorder (OCD) in women, even in those without a prior

history of the condition. These symptoms often focus on caregiving and concerns about the baby, such as persistent fears of harming the child through contamination, leading to repetitive behaviors like excessive washing, dietary restrictions, limited mother-child interaction after birth, and avoidance of activities or social contact. Such OCD symptoms can interfere with caregiving responsibilities and cause significant distress for mothers (Fiona, Challacombe, et al., 2019). OCD affects 2-4% of women during the perinatal period, and fathers can also experience OCD. Unwanted, distressing thoughts in parents often lead to compulsive behaviors accompanied by high anxiety levels (Fiona, Challacombe, et al., 2019).

Generalized anxiety disorder (GAD) is clinically different from the anxious feelings related to postpartum depression. Generalized anxiety disorder (GAD) is characterized by overwhelming and uncontrollable excessive worries which inhibits daily life functioning. Although Generalized anxiety disorder (GAD) occurs frequently during the perinatal period, the Diagnostic and Statistical Manual of Mental Disorders- Fifth Edition (DSM 5th edition) currently identifies and designated specifiers (specifiers are a diagnosis extension which are used for clarifying a disorder) only for mood disorders with peri-partum onset but not for anxiety disorders (DSM 5th edition, 2013). The DSM-5 requires symptoms to persist for six months for a GAD diagnosis, making it challenging to diagnose postpartum anxiety as GAD. Some researchers therefore define perinatal GAD as meeting DSM criteria with symptoms lasting at least one month (Buist et al., 2011). Physical symptoms of GAD such as fatigue, tension, irritability, concentration difficulties, and disturbed sleep are often under-recognized or mistaken as Non-displaced pregnancy or postpartum experiences (Weisberg & Paquette, 2002). Perinatal worries tend to be recurrent, intrusive, and irrational, focusing on fears about the fetus, maternal health,

partner illness, or parental mortality. Persistent worries can significantly impair daily functioning. The prevalence of GAD ranges from 8% to 10% in prenatal women and 4% to 10% in postnatal women (Shaila et al., 2015). Excessive worries during pregnancy and postpartum often include concerns about maternal and infant health, mortality, irritability, concentration problems, agitation, disturbed sleep, headaches, somatic aches, and gastrointestinal issues, which are generally uncommon in pregnancy (Taylor, 2020). The occurrence rate of GAD in the perinatal period varies between 8.5% and 10.5% (Adewuya et al., 2006), higher than the 1.2% to 6.4% rate found in the general population (Hoge, 2004), with postpartum rates ranging from 4.4% to 10.8%.

Panic Disorders among women during the pre-partum period have found different results, some report symptom improvement during pregnancy, while others find symptoms worsen. However, the postpartum period carries an increased risk of symptom relapse (Altshuler et al., 2000). During panic attacks, women may experience anxiety, shortness of breath, choking sensations, chest pain or discomfort, palpitations often linked to tachycardia, hot flashes, tingling or numbness, feelings of losing control or going crazy, and tremors. Panic attacks can occur without specific triggers, sometimes even awakening a person from sleep. Fear of recurrent attacks often leads women to avoid perceived threats, real or imagined, resulting in social isolation and impaired daily functioning (Taylor, 2020).

Post-Traumatic Stress Disorder (PTSD) symptoms may be experienced by women who experience gynecological or obstetric complications during pregnancy, birth trauma, or have a history of past trauma such as childhood abuse may develop symptoms of Post-Traumatic Stress Disorder (PTSD). These symptoms include flashbacks, nightmares, uncontrollable distressing thoughts, emotional and physical

reactions triggered by reminders of the trauma, negative beliefs about oneself and others, feelings of hopelessness, difficulty concentrating, memory problems related to the trauma, social withdrawal, loss of interest in enjoyable activities, emotional numbness, heightened startle responses, hypervigilance, self-blame, and sometimes suicidal thoughts (DSM-5, 2013). Women with PTSD may also feel detached from their newborn and loved ones. The intense arousal and hypervigilance towards perceived threats often lead to depression due to persistent negative emotions and thoughts about the future (Taylor, 2020).

Perinatal Mood Disorders:

Prenatal depression (PND) is associated with adverse pregnancy outcomes such as miscarriage, premature birth, pre-eclampsia, low birthweight, and neonatal growth retardation (Davalos et al., 2012).

Postpartum depression (PPD) negatively affects maternal mental health and mother-infant bonding, increasing the risk of cognitive, emotional, and behavioral problems in infants (Kingston et al., 2012). Despite its significant impact, perinatal depression often remains undiagnosed and untreated, leading to severe consequences including hospitalization, higher morbidity, and increased suicide risk. Women with a history of perinatal depression face a high relapse risk in future pregnancies, underscoring the need for early diagnosis and treatment throughout a woman's reproductive life (Luskin et al., 2007). Additionally, untreated perinatal depression worsens racial and socioeconomic disparities, as it is more prevalent among low-income populations who experience greater barriers to care (Goyal et al., 2010; Kozhimannil et al., 2011).

Postpartum blues is highly common among postnatal women, affecting 50% to 85% during the first few weeks after childbirth (Llewellyn et al., 1997). New mothers often become sensitive to their environment, experiencing irritability, crying spells, mood swings, anxiety, low mood, feelings of being overwhelmed, difficulty concentrating, appetite changes, and disturbed sleep. These symptoms typically last from a few days up to two weeks and are linked to sleep disturbances from newborn care and hormonal changes. Emotional support from family and friends, along with adequate rest, are effective interventions (Taylor, 2020). Perinatal depression affects 10 to 15% of women during or after childbirth (Bennett et al., 2004). Untreated depression during pregnancy can lead to postpartum depression, which generally appears within the first three months after birth but may occur anytime during the first year. Affected mothers often experience feelings of worthlessness, guilt, self-doubt regarding their ability to care for their baby or maintain a positive home environment, especially when menstruation returns or when weaning the child from breastfeeding (Taylor, 2020).

Major Depressive Disorder:

According to DSM-5 criteria Major depressive Disorder is characterized with: A major depressive episode is defined by the presence of at least five symptoms over a two-week period, marking a change in previous functioning and including either persistent low mood or a lack of interest or pleasure. These symptoms may involve pervasive sadness, diminished interest in enjoyable activities, significant weight changes due to altered appetite, disrupted sleep patterns (insomnia or hypersomnia), psychomotor agitation or retardation, fatigue, feelings of worthlessness or excessive guilt, and recurrent thoughts of death or suicidal ideation.

The symptoms cause significant distress or impairment in social, occupational, or other important areas of functioning and cannot be attributed to substance abuse, medication, or a medical condition. They are not better explained by schizoaffective disorder, schizophrenia, delusional disorder, or other psychotic disorders, nor do they meet the criteria for a manic or hypomanic episode. Major depressive disorder (MDD) has a global prevalence of approximately 12%, affecting 10–25% of females and 5–12% of males. It ranks among the top ten causes of disability worldwide. Key risk factors for MDD include gender, life stressors, certain personality traits, and adverse childhood experiences. According to the DSM-5, the average onset age for a major depressive episode is 29 years. The disorder often recurs, with 60–90% of individuals experiencing two or more episodes, either with partial or full remission. Chronic MDD affects approximately 20% of patients, with episodes lasting two years or more, while 5–10% of cases later present with manic or hypomanic episodes (DSM-5, 2013).

Etiologies of Major Depressive disorder are genetics, neurochemical, psychological traits and environmental or social factors.

Genetics: Major depressive disorder occurrences risk increases three fold to four fold among first degree relatives.

Neurochemical: Neurotransmitters such as Monoamines, serotonin, norepinephrine, deficiencies of dopamine, GABA (Gamma aminobutyric acid), Glutamate etc. are proven to have a role in causing the depression.

Biological causes such as comorbidity of medical problems, substance abuse and medication may be the basis of major depressive disorder.

Psychological factors such as negative and distorted thoughts, personality traits, adopted behaviors which reinforces depressive symptoms, self-esteem, problem in interpersonal relationships and Social factors such as current stressful events of life, isolation, poor social or emotional support, childhood trauma history, neglect from parents, parental loss, history of broken relationship and low education can also cause major depressive disorder.

In pregnant or post-partum women duration of major depressive disorder with a duration of two or more than weeks experiences symptoms of low mood, changes in appetite pattern, lack of interest, weight gain or weight loss, disturbed pattern of sleep, difficulty in concentration, fatigue and psychomotor retardation. Women may experience self-harm ideation, suicidal ideation or behavior in moderate or severe episode of Major depressive disorder. But risk of suicidal attempts and deaths are lesser among pregnant women and postnatal women as compared to the general population. Up to 20 percent cases of postpartum deaths are due to suicide (Lindahl et al., 2005). Unwanted pregnancy, inability or failure in getting a desired abortion, miscarriage or death of a child, neglect by a partner, or stopping to take psychotropic medication are the risk factors for suicide in pregnant women (Taylor, 2020).

Bipolar Disorders:

DSM-5 describes bipolar disorders as a group of brain disorders, causes changes in the mood, energy and ability to function of a person. Bipolar disorder category comprises of three different condition / diagnosis i.e. bipolar-I, bipolar II, and cyclothymic disorder. Mood episodes with intense and extreme emotional states, occurs during different period of days lasting to weeks, accompanied with an extreme change in behavior, difficulty in daily functioning and difficulty in social

interaction may be experienced by people with bipolar disorder. In bipolar disorder people experiences mood episodes of mania/hypomania (moods of abnormally displacedly happy or irritability) or depressive mood (sadness) as well as neutral mood periods.

According to DSM-5 Bipolar disorder onset is 25 years age. It runs commonly in families and 80-90% patients of bipolar disorder have family history of bipolar disorder or depression. Mood episodes may be also caused by environmental factors i.e. stress, disturbed sleep pattern, and substance abuse. Yet specific etiologies of bipolar disorder within the brain are not clear however it is believed that imbalance in brain chemicals can lead to deregulate the brain activity.

Bipolar-I disorder is characterized with a manic episode i.e, symptom of increase in energy, feelings of being on the top of the world and irritability or a hypomanic or depressive episode. A person with manic episode owns more energy than usual and experiences changes in their behaviors i.e. Lessened sleep need than usual, faster or increased speech, quick changes in thoughts, ideas and topics while speaking, distractedness, psychomotor agitation, increase in risky behaviors. People with manic episode may experience psychotic features i.e, false beliefs, disorganized thoughts, and/or hallucinations.

In hypomanic episode less severe manic symptoms are experienced which do not cause major problems in daily life functioning areas and lasts within four days rather than a week like manic episode.

In bipolar II disorder symptoms of at least one major depressive episode and one hypomanic episode are experienced and may less severe and does not constrains