EFFECTIVENESS OF ISLAMIC INTEGRATED COGNITIVE BEHAVIORAL THERAPY PSYCHOSOCIAL DISTRESS AND RESILIENCE AMONG WOMEN WITH POLY

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I, **Ms.Wardah Ishfaq**, Registration No. **61-FSS/PHDPSY/F18** student of **PhD** in the subject of Psychology, session **2018-2024**, hereby declare that the matter printed in the thesis titled: "Effectiveness of Islamic Integrated Cognitive Behavioral Therapy Psychosocial Distress and Resilience among Women with Poly" is my own work and has not been printed, published and submitted as research work, thesis or publication in any form in any University, Research Institution etc in Pakistan or abroad.

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RESEARCH COMPLETION CERTIFICATE

Certified that the research work contained in this thesis titled: "Effectiveness of Islamic Integrated Cognitive Behavioural Therapy Psychosocial Distress and Resilience among Women with Poly" has been carried out and completed by Ms. Wardah Ishfaq, Registration No. **61-FSS/PHDPSY/F18** under my supervision.

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Dedication

I would like to dedicate this research to my very loving parents, Mother in Law, my sister, my Supervisor Dr. Rabia Mushtaq, My Mentor Prof. Dr. Muhammad Tahir Khalily and Dr. Tamkeen Saleem, and especially to My Better half Muhammad Fiaz ur Rehman Khattak and my beloved children, Dua Fiaz, Muhammad Ahmad Fiaz and Muhammad Faateh bin Fiaz.

Table of contents

LIST OF TABLES

LIST OF FIGURES

LIST OF ANNEXURES

LIST OF ABBREVIATIONS

APA	American Psychological Association
DSM	Diagnostic and Statistical Manual of Mental Disorders
SPSS	Statistical Package for Social Sciences
PCOS	Polycystic Ovary Syndrome
QOL	Quality of life
LH	luteinizing hormone
AES	Androgen Excess Society
NCCN	National Comprehensive Cancer Network
VAP	Valproic acid
HPO	Hypothalamic-pituitary-ovary
HPG	Hypothalamic-pituitary-gonadal
QoL	Quality of Life
PCOSQ	The Polycystic Ovary Syndrome Quality of Life scale
WHOQOL	WHO Quality of Life
CBT	Cognitive Behavioral Therapy
NAT	Negative Automatic Thoughts
BPS	Bio-Psycho-Social
BPSS	Bio-Psycho-Social-Spiritual
HRQoL	Health Related Quality of Life
IICBT	Islamic Integrated Cognitive Behavioural Therapy
CVI	Content Validity Index
CVR	Content Validity Ratio
I-CVI	Individual-Content Validity Index
S-CVI	Scale-Content Validity Index

PSSDI	Multidimentional distress
N	Number of Participant
SD	Standard Deviation
α	Reliability Coefficient
EFA	Exploratory Factor Analysis
CFA	Confirmatory Factor Analysis
KMO	Kaiser-Meyer-Oklin
MHI	Mental Health Inventory
CDRS	Conner Davidson Resilience Scale
SPS	Social Provision Scale
MSAS	Muslim Spiritual Attachment Scale
Psy D	Psychological Distress
Psy W	Psychological wellbeing
SiD	Spiritual Distress
M	Mean
CI	Confidence Interval
SD	Standard Deviation
LL	Lower Limit
UL	Upper Limit
MDD	Multidimensional distress

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ABSTRACT

The present study aimed to investigate the effectiveness of Islamic Integrated Cognitive behavioral Therapy on psycho-socio-spiritual distress and resilience among women suffering from Polycystic Ovary syndrome through pre-post quasi-experimental design. The current study has been conducted in three phases. Phase I aimed at developing the Multidimensional distress Inventory for Polycystic ovary syndrome-Urdu to measure the psychological, social and spiritual distress among women suffering from Polycystic Ovary Syndrome. The psychometric properties of the newly created Multidimensional distress Inventory for polycystic ovary syndrome-Urdu were also established by applying the new inventory on the sample of 200 women suffering from PCOS. The study findings demonstrated that the Multidimensional distress Inventory-Urdu for Polycystic ovary syndrome-Urdu is a very reliable psychological tool for evaluating the multidimensional distress (Psychological, Social and Spiritual) among women suffering from Polycystic Ovary Syndrome (PCOS). The findings also suggest that Multidimensional Distress-Urdu and all its subscales, including psychological distress, social distress, and spiritual distress, have a high level of internal consistency. The construct validity of the Multidimensional distress Inventory for Polycystic ovary syndrome –Urdu was established by assessing the scale's convergent and divergent validity. Phase II comprised of pilot testing which aimed at determining the psychometric properties of Multidimensional distress Inventory for Polycystic ovary syndrome-Urdu and Conner Davidson Resilience Scale-Urdu and measuring the correlation between study variables.The sample size of Phase II was 60 women suffering from Polycystic ovary syndrome.The study included relaibaility and correlation analysis. The finding suggests that both scales are higly relaiable and Multidimensional distress Inventory for Polycystic ovary syndrome-Urdu and Conner Davidson Resilience Scale has negative correlation, $p < 0.001$. Phase III consisted of the main study with a screened sample of 40,

married women (n=20) and unmarried women (n=20), it aimed to investigate the effectiveness of Islamic Integrated Cognitive Behavioral Therapy on the Multidimensional distress (psycho-socio-spiritual distress) and resilience among women suffering from Polycystic Ovary syndrome. It also investigates the difference in psychological, social, and spiritual distress and resilience with respect to age, working status, marital status, and socioeconomic status. The psychological instruments used in the present study were the Multidimensional Distress Inventory for Polycystic Ovary Syndrome-Urdu (developed by the researcher as part of the study), the Conner Davidson Resilience Scale –Urdu (Sarwer et al., 2021). On the baseline assessment, the sample size was 40 women with PCOS with age ranging from 18 to 45 years. The sample was divided into two groups, an experimental and a control group, and each group had 20 women. Islamic Integrated Cognitive Behaviour Therapy (IICBT) was given to the experimental group and reading material was given to the control group. The therapy consisted of a total of 10 sessions and the efficacy of the IICBT was determined after pre and post-assessment by Multidimensional Distress Inventory for Polycystic Ovary syndrome-Urdu (MDDI-PCOS-U) and Conner Davidson Resilience scale-Urdu (CDRS-U). The post-test assessment was done through the Multidimensional Distress Inventory for Polycystic Ovary Syndrome-Urdu (developed by the researcher as part of the study), Connor Davidson Resilience Scale –Urdu (Sarwer et al., 2021). The data of 40 participants was analyzed through SPSS-26. For the analysis of the data, correlation, T-test, ANOVA, and paired sample t-test analysis were applied. The findings of the present study indicated the effectiveness of Islamic Integrated Cognitive Behavioral Therapy for the multidimensional distress and resilience among women suffering from PCOS. The result indicated that a significant difference in the post-test scores of the experimental and control groups on both scales. In the experimental group the scores indicated that after therapeutic intervention, the distress level of women decreased while resilience increased however in the

control group there was no significant change in the post-assessment phase. The finding also indicated that Islamic Integrated Cognitive Behavior Therapy also increased the resilience in the experimental group that will help the participant to better cope with the challenges associated with PCOS. The result also indicated that there is a significant negative relationship between Multidimensional distress and resilience. With the increase of individual distress level, the resilience power decreases. The finding also shows that younger women experience high level of multidimensional distress and a lower level of resilience than older women suffering from polycystic ovary Syndrome. The results also indicate that married women have more Multidimensional distress and lower level of resilience as compared to unmarried women. Furthermore, the finding also elucidates that women from low socioeconomic status experience more distress than women belonging to middle and higher socioeconomic status. The overall findings of the study emphasize the importance of screening the Multidimensional distress and resilience among women suffering from polycystic ovary syndrome and its management through Islamic integrated psychotherapy.

Keywords: *Psychological, Social, Spiritual, Distress, Islamic integrated, psychotherapy, Cognitive Behavioral Therapy, Resilience, Polycystic Ovary Syndrome*

Chapter 1

Introduction

Girls' and women's health is in transition and, although some aspects of it have improved substantially in the past few decades, there are still important unmet needs. The complexity of the challenges faced by women throughout the life course needs an increased focus on health systems, which heavily rely on the many contributions of women to care as members of the health workforce, in which their numbers are rapidly increasing, and in their traditional roles as primary caregivers at home and in communities. Women's reproductive health is deeply impacted by conditions like polycystic ovary syndrome (PCOS), a hormonal disorder common among women of reproductive age. Polycystic Ovarian Syndrome (PCOS) is a prevalent endocrine condition that affects around 5-10% of reproductive-age women in developed countries (Franks, 2017). The incidence of polycystic ovary syndrome (PCOS) is significantly greater among South Asian women (52%) as compared to the White population in the UK, which ranges from 20% to 25% (Ahmad, 2022). There is a limited amount of local research available that might provide an understanding of the indigenous elements contributing to the condition. The rising prevalence can be ascribed to a combination of genetic causes, environmental and social factors. Furthermore, polycystic ovary syndrome is more common in females whose family's women have irregular menstrual cycle (Yildiz et al., 2003).

Pakistan is now one of the most populated countries in the world, with a population growth rate of around 2%. Additionally, it has a high rate of infertility, which is 21.9%. This includes 3.5% primary infertility and 18.4% secondary infertility (Artini, 2010). Female infertility can be attributed to a multitude of potential factors. Polycystic ovarian syndrome is the primary cause of curable infertility, particularly prevalent among young women. It is

responsible for ovulatory infertility in around 70% of cases (Melo et al., 2015).

Due to hormonal imbalances and negative stigmas related to PCOS, women are at risk of experiencing other medical health problems like cardiovascular disease and diabetes alongside psychological distress that can lead to social and spiritual distress. These factors collectively impact a woman's identity and overall quality of life (Shafiee et al., 2020).

Psychological distress

Psychological distress refers to a complex and unpleasant mental state that can arise from several factors, such as cognitive, behavioral, emotional, social, or spiritual problems. It can hinder a person's capacity to cope with physiological and psychological illnesses and its management. The effects of psychological distress are negative; it can be because chronic illnesses like cardiovascular diseases lower the immune system and lead to severe mental illness. The literature extensively documents the elevated prevalence of depression and anxiety among women diagnosed with polycystic ovary syndrome (PCOS) (Brutocao et al., 2018). Based on empirical evidence, there is a six-time higher chance that women with PCOS will experience anxiety symptoms and a four time higher chances that they will manifest depressive symptoms in comparison to women without experiencing PCOS (Brutocao et al., 2018). Longitudinal research has revealed that while depression scores declined over 30 years however they elevate with time in women suffering from it in comparison to women without polycystic ovary syndrome (PCOS) (Greenwood et al., 2019).

Psychological issues like depression and anxiety that are suspected to be associated with PCOS can be attributed to interactions among biopsychosocial factors (Dokras et al., 2011). An increased body mass index (BMI) has been linked to depression; additionally, BMI has been associated with diminished self-esteem and high level of body dissatisfaction (Sikorska & Pietrzak, 2018). Higher levels of distress have also been associated with infertility and worry regarding conception (Deeks et al., 2010; Holton et al., 2018); acne and

unwanted hair have also been found to contribute to depressive symptoms, irritability, and anxiety (Cooney et al., 2017). According to a systematic review, menstrual irregularities and unwanted hair significantly impacted health-related quality of life (Bazarganipour et al., 2015). Likewise, qualitative researches have suggested that distress may be associated with a woman's perception of lacking control over PCOS and its physical manifestations (Hadjiconstantinou et al., 2017). Psychological distress does not only disturb the psyche of the individual moreover It also causes distress in the social domain of the women suffering from PCOS.

Social Distress

Social distress is a situation that poses a danger to an individual's relationships, self-esteem, or feelings of belonging within a dyad, group, or broader social environment (Gómez-Gil et al., 2012). Social stressors are considered as objective events that can threaten and destroy the normal life activities of an individual. Situations that can impact the status of an individual either by increasing or decreasing it, can be included in such events. In both conditions, social stress increases and is related to the changing socioeconomic status of an individual in a society. Psychosocial stress has been originated by society and its conditions that mostly appear in social interaction events. Various factors like negative social events, role stress, chronic illness, and individual prediction and awareness of his failure can be considered as major causes of psychosocial stress. Socio-psychological stress can be defined as a form of distress developed by the social conditions during the social transformation period of an individual that leads to the destruction of the dispositional system and social functioning processes of that individual which may cause victimization (Zambrana, 2018).

Socioeconomic issues impact PCOS patients' well-being (Céilleachair et al., 2012). Their well-being and living conditions are fundamentally influenced by social factors (Helliwell, 2019). Adverse social and economic circumstances have the potential to diminish

the subjective well-being and heightened distress of patients, as well as have an adverse impact on their quality of life (Duijts et al., 2013). In the context of illnesses, social distress, also known as toxicity, refers to the degree to which financial issues, social obligations, and social interactions hinder patients' ability to cope with challenges and their reactions to the diagnosis and treatment process (Mavaddat et al., 2014). As PCOS diagnosis is correlated with adverse consequences that affect multiple facets of an individual's existence, encompassing social and financial domains. Diagnosing and treating this condition pose difficulties for individuals in various spheres of social life, such as professional life, personal relationships with loved ones, employment, financial matters, recreational pursuits, and interactions with healthcare professionals (Catt et al., 2016). Moreover, the duration of its treatments can impose considerable financial obligations on patients and their families (Enns et al., 2013).

Women who are diagnosed with PCOS are susceptible to persistent distress due to several risk factors. Females, and younger patients are more susceptible to experiencing more significant distress (Anglin et al., 2017). However, social support has long been recognized as an essential factor, despite the stigma associated with the disease frequently isolating patients and depriving them of support (Li et al., 2018). There is empirical support for the notion that social support systems and networks are correlated with an improved quality of life among patients (Kroenke et al., 2013). Furthermore, there is evidence to suggest that cancer patients can enhance their quality of life by sharing information about their experiences and that social sharing is promoted by attachment security (Yoon et al., 2019). There is evidence to suggest that diminished emotional support and the absence of close social connections are linked to a higher prevalence of mental disorders, especially among individuals who lack close relatives and friends (Chaudhari et al., 2018). Patients who experience less isolation and benefit from diverse forms of social support, such as compassion, have demonstrated

improved quality of life indicators among those who have survived PCOS (Lehman et al., 2010).Women who are afflicted with Polycystic Ovary Syndrome (PCOS) encounter adverse societal perceptions and stigmas, which force them to navigate complex social situations and contend with turbulent or contentious marriages and familial relationships (Kiecolt-Glaser et al., 2010). Due to disturbed relationships, women feel rejected, alienated, or disregarded, and they start to move away from social gatherings and commitments and isolate themselves. For women who experience psychological and social distress due to chronic illness, a feeling of hopelessness and emptiness leads to spiritual distress (Schultz et al., 2017).

Spiritual Distress

Spiritual distress can be defined as the disturbance in any aspect of the spirituality. There is not sfecific definition spiritual distress. Some authors try to define spiritual distress, such as Carpenito (2002), who defines *spiritual distress* as any disruption in the fundamental belief or value system that imbues an individual's life objective, optimism, and courage. The North American Nursing Diagnosis Association (NANA) defines spiritual distress in 2001 as a disruption in the life principle that pervades a person's entire being and that integrates and transcends one's biological and psychological nature." According to Gulanick et al. (2003), spiritual distress is characterized by a fundamental shift in one's beliefs or values that threatens the purpose of existence. An individual in spiritual distress may experience a loss of hope, doubts about his or her own beliefs, or an increasing amount of attention being drawn to spiritual matters from his or her source of strength. Crises such as pain, chronic terminal illness, surgery, mortality, or the illness of a loved one have the potential to induce spiritual distress. Physical separation from kin and one's native culture contributes to feelings of isolation and abandonment that also induce spiritual distress (Hui et al., 2010).

These definitions tried to cover all the aspects of spirituality, but there are apparent philosophical differences between Muslims and non-Muslims. As to the Western

conceptualization, spirituality has three primary aspects: Connectedness, Transcendence, and Meaning (Weathers & Coffey, 2016). The concept of the sacred can manifest in several forms, such as God, the divine, ultimate reality, or the absolute (Hill, 2003). Connectedness may be described as being interconnected or having a sense of relatedness to oneself, others, and the natural world, which may also encompass a connection to a higher power or Supreme One. One's worldview and personal ideas shape it, which might come from introspection.

In contrast, transcendence is considered one of the highest state of consciousness (Weathers et al., 2016). In the Western concept, religion is different from spirituality. According to Tanyi (2002), religion refers to ideas and practices that establish a framework for conducting religious worship. Therefore, it may be argued that religion is one aspect of spirituality, whereas spirituality encompasses a broader range of experiences than religion. In addition to religious expressions, spirituality can manifest in various religions. Based on current scholarly discourse, spirituality and religion are commonly seen as interconnected yet separate entities (Tanyi, 2002).

On the other hand, spirituality in Islam is characterized by a connection with Allah that influences an individual's sense of self-worth, purpose, and bonds with others. So, in Islam, spirituality cannot be seen as a distinct and separate phenomenon or notion from the context of religion. It is ingrained in our faith, values, and morals. Each spiritual encounter inherently possesses religious importance. That being stated, Islamic spirituality is a trait that should be pursued seriously and gradually (Hazri, 2013). According to Ghazali, the term spirituality means Tazkiah e Nafs; a process to purify the nafs ftom evil temptation to gain the pleasure of Allah. Through tazkiya e nafs human can attain the next higher part of the inner self-called nafs mutmainna (Ghazali, 2000). At this higher stage of nafs, one can redefine the challenges in his/her life to strengthen one's bond with Allah Subhanahu Wa Ta'ala "SWT. He/she can then find a solution, which is clearly outlined in the Holy Quran

and witnessed in the life of Prophet Muhammadﷺ who responded in trials by showing firm belief on AllahSubhanahu Wa Ta'ala "SWT" and bear all the trabulation with saber and taqwa.

As stated in the Holy Qurʾān," So, verily, with every difficulty, there is relief: Verily, with every difficulty there is relief" (Quran, 94: 5-6).

Studies demonstrate that therapists using Islamic principle based intervention to build stronger attachments with the Allah that it is highly effective in treating patients (Jabbar & Al-Issa, 2000).

Humans according to Al-Ghazali, created by Allah as a creature consisting of (spirit, which can be known by spiritual insight) and body. The terms used by Al-Ghazali for the soul are qalb, ruh, nafs and aql. According to Ghazali, the Soul or ruh resides in the qalb, that aspect of the Soul that is connected with the divine force Allah Subhanahu Wa Ta'ala "SWT."The importance of the Soul for human excellence is undeniable and a true fitrah of human existence. Virtues (munjiyat), such as wisdom, justice, courage, and temperance, intensify through the remembrance of Allah and the afterlife (akhirah), resulting in and bringing the Soul closer into alignment with the state of fitrah. The more the qalb becomes enslaved in satisfying these worldly inner desires, which are mostly centered on the lower self," nafs-amarah," the more it distances from the Fitrah. This is said to result in a heightening of vices (muhlikat), such as anger, envy, greed, and lust, and a state of forgetfulness or heedlessness of God (gafla). There are three distinct stages of the Soul's development or growth throughout life, which is explained by Abu-Raiya (2012). These stages are termed nafs alamara bil su ("soul that inclines to evil"), nafsal lawwama ("self-accusing soul"), and nafs almutmainah ("soul at rest").

Therefore, the connection between the qalb and ruh becoming threatened by the uncontrolled, lower self that is the actual cause of the stress, anxiety, and emotional

distress. Therefore, this implies that the lower inner self instructs directly, and influences the Qallb and prevents the growth of Roh, the soul, which is the ultimate solution for positive emotional growth. Therefore, to clean the heart from these negative emotional states, one needs to reconnect with Allah Subhanahu Wa Ta'ala "SWT" and the teachings of Prophet Muhammad ﷺ and attain the stage of nafs almutmainah ("soul at rest"). This can be possible by the liberation from heart disease through "tazkiyatun nafs" (purification of the soul"), the method based on Imam al-Ghazali's Islamic Model. Imam al-Ghazali discusses the parent tool for self-purification, like prayers, contemplation, ikr, and tolerating worldly temptations (Hasan & Tamam, 2018).

Sitwat and Dasti (2014) propose that spirituality in Islamic religion is founded upon seven fundamental notions or components.

Explore the concepts of Divinity and the search for meaning and purpose in life. It is described as the pursuit of activities aimed at discovering the purpose of one's life and seeking knowledge about the Ultimate Creator and Sustainer of the cosmos. Individuals often engage in activities such as seeking advice from knowledgeable sources, consulting the Qur'an and following the sunnah (the way of life of the Prophet Muhammad), and contemplating the natural world in their quest to understand and build a sense of the Divine and the meaning and purpose of their own lives. It encompasses emotions connected with the significance and objective of an individual's existence.

Belief. The content encompassed all the tenets of the Islamic Faith, such as the belief in Allah, the recognition of Prophet Muhammad as the last messenger, the concept of the Day of Judgment, the existence of angels, the notion of destiny, the acknowledgment of prior sacred writings including the Torah and the Bible, and the belief in an afterlife.

Islamic rituals and customs include namaz (Urdu for prayer), paying alms, performing charitable deeds, fasting, reciting the Holy Qur'an, wearing a hijab (for women),

and participating in congregational prayers (for men).

Moral conduct. They are characterized as ethical principles and ethical maladies. The moral principles encompass veracity, integrity, fidelity, bravery, dignity, magnanimity, constancy, clemency, forbearance, and equity. Examples of moral ailments encompass falsehood, perjury, verbal insults, slander, distrustful surveillance, ridiculing others, wastefulness and stinginess, ostentation and deceit, excessive flattery, avarice, envy, attachment to material possessions, seeking retribution, arrogance, and vanity.

Self-discipline encompasses incorporating structure and discipline into one's personal and professional life. It involves the practice of self-regulation in routine tasks such as eating, sleeping, communicating, and managing anger. Self-discipline is also characterized by persistence in pursuing one's life objectives and interests.

Duties and responsibilities. It is described as the obligations and duties that a Muslim has towards their parents, children, spouse, close relatives, neighbors, visitors, and other Muslims.

Perception of divine presence/ sensation of profound connection with Allah. It is characterized as a profound sense of closeness and personal connection with the Creator, which enriches life with a profound sense of purpose, delight, and contentment. Additionally, it encompasses apprehension regarding Allah's punishment and responsibility, optimism regarding the possibility of absolution for one's transgressions, and a conviction in Allah's benevolence and affection.

In light of the above-mentioned discussion, spirituality in Islam is different from spirituality in other religions and there is no solid definition of spiritual distress. Some authors define it as the disturbed relationship between human beings and the transcendent (Belcher, 2006). Spiritual distress is also found in the literature as "existential suffering" (Bates, 2016), "spiritual anguish" (Chaves et al., 2010), "spiritual pain" (Delgado. 2013), and

"spiritual struggle" (Exline, 2016). So there is also a need to conceptualize the spiritual distress among the Muslim population.

Several researchers suggested that individuals with chronic illnesses report unmet spiritual needs that can cause psychological and social distress (Busing, 2013; Klimasinski, 2022), no doubt polycystic ovary syndrome affects all the domains of women, psychological, social, and spiritual and for survival, women use different coping strategies to manage psychological, social, and spiritual distress. Many social and familial factors work as a buffer against distress, but resilience is the most important personality attribute that buffer against determinal effect of disress (Zhang, Brown & Rhubart, 2023). Psychological resilience in children and adolescents has been correlated to perceptual competencies, problem-solving skills (Lereya et al., 2016), memory, intelligence (Henderson & Wilson, 2017) cognitive flexibility (Sisto et al., 2019) learning, planning, critical thinking and executive functions (Leve et al., 2012). Lateral thinking and problem solving can enhance resilience by identifying alternatives and devising creative solutions. The capacity to engage in critical thinking can also help to shield individuals from simplistic interpretations of experience (Southwick et al., 2016).

Resilience

Resilience is defined as the capacity of any individual to recover or rebounce back from adversity, disappointment, and setbacks (Morgan, 2015). Variation exists regarding the application of the term resilience. According to the Werner (1995): Resilience is the psychological capacity to extract positive outcomes from the adverse situations, sustained competence in the face of stress, and recovery from trauma. In recent years, the prevailing definition of resilience is "positive adaptation in the face of adversity" (Luthar, 2006). Positive adaptation and adversity are self-descriptive components of resilience. From this angle, the evaluation of resilience is never explicit; instead, it is deduced indirectly from the

presence of these indicators. Other scholars have also acknowledged the validity of this concept (Yates et al., 2003; Sroufe et al., 2005). According to this approach Rutter (2005) argued that resilence requires adversities for its development and it distinguishes resilience from typical or expected development (Rutter, 2005). Fonagy et al. (1994) resilience is a typical process that occurs in the face of adversity (Masten, 2001).

Resilience was defined as resistance against risks of psychosocial experiences (Rutter,1999; 2000). This perception includes various outcomes instead of focusing only on positive ones. It contradicts the idea that safety can be found only in positive experiences and solutions to difficult situations are present in the immediate reaction of individuals (Rutter, 2000). Resilience includes four subtypes Community, physical, emotional, and psychological resilience. Researchers of the last 20 years have concluded resilience as a multi-dimensional characteristic that is based on time, context, age, gender, and personal experiences due to different life events (Garmezy, 1985).

The progression of studies on resilience includes four major waves. In the first wave, the phenomena of resilience were described in detail along with its basic concepts and methods. In the second wave, the developmental system approach was adopted to understand the arrangement between individuals and various systems of their development. In the third wave, the focus was to develop resilience through interventions that manipulate the developmental pathways of individuals. In the last and recent wave, the focus of studies was to incorporate resilience in various levels of analysis, majorly focusing on epigenetic, neurobiological processes, and brain development. Throughout the conceptual development of resilience, it has been defined as a trait of an individual, an outcome, and a dynamic process. In the first wave, researchers were focused on discovering the capacities and traits of individuals that helps them in positive adaptation against stressors. (Anghel, 2020). Resilience can be further

defined as a personal capability that enables a person to survive in adverse situations (Connor and Davidson, 2003).

Successful adaptation to adverse situations can lead to resilience as an outcome (Zautra, 2008). The resilience process can be explained by individual characteristics and situations only when the outcome of an adverse situation is positive and healthy. Normally, the presence of resilience is measured through its appearance in adaptive behaviors but it is theoretically possible to measure the potential capability of a person to adapt against challenging situations even before his successful adaptation to adverse situations. This evaluation is difficult and complex (Masten and Barnes, 2018). Overall, resilience is an individual's ability to adapt to adverse conditions positively. it also involves the process an individual goes through to return to his optimal functioning. Resilience is a multidimensional trait and dynamic process which is based on various factors including individual and contextual factors that influence it. When exposed to adverse conditions either psychologically or environmentally, individuals' capacity to find their way to positive resources and the condition of their family, culture, and community to provide these positive resources is known as resilience (Ungar, 2011).

Excessive distress is linked with pessimistic thinking, uncertainty about self, self-critique, and loss of connection with Allah. Those who are in distress are more vulnerable to developing psychopathology in their later life (Klimasiński et al., 2022). Incorporating positive emotions and positive thinking via systematic intervention would develop insight into psychological health. This insight would have an impact throughout their lifetime in maintaining long-term psychological and physical health. People with good mental health engage in more constructive activities linked to overall success in life (Ungar & Theron, 2020). By enhancing resilience, the capacity for a successful life may commence, which

influences decision-making in preference for healthy behavior. Life is full of challenges and requires a healthy attachment to Allah and enhancement in resilience to meet life's challenges (Saldanha & Barclay, 2021). Social interaction requires initiative and assertiveness. People with constructive concepts about themselves may form healthy relationships with family, friends, colleagues, and significant others (Zimmerman, 2013). Intervention would provide an opportunity to develop the capacity among individuals to manage distress (Ringeval et al., 2020). In the context of polycystic ovary syndrome, enhancing their mental health and therapeutic outcomes, resiliency can shield them from the adverse effects of stress and adversity by mitigating the negative consequences of the diagnosis, treatment side effects, and disease-related lifestyle changes. The literature demonstrates that participants with chronic illnesses who exhibited greater resilience reported experiencing less psychological distress and enjoyed a higher quality of life in comparison to those who lacked resilience. Conversely, individuals with lower levels of resilience continue to experience distress and have extended periods following treatment (Molina et al., 2014). Individuals suffering from chronic illnesses try to cope with psychological problems. However, due to excessive negative thoughts, hopelessness, and cognitive distortion, individual needs professional help to manage their distress level. The literature supports the efficacy of cognitive behavioral therapy (CBT) in managing distress, as it addresses both cognitive and behavioral domains. Cognitive Behavioural Therapy (CBT) is a secular approach with deeply ingrained principles in the American value system. Its focus on cognition, logic, and rational thinking is reinforced by and contributes to prevailing cultural discourses, such as definitions of rationality that disregard spirituality (Kantrowitz, 1992). Religion has been given minimal importance in the CBT framework (Imawasa & Hays, 2018). However, certain clinicians have contended that the model remains more congruent with Islamic values than alternative methodologies (Sheik, 2018).

Islamic Integrated Cognitive Behavioral Therapy

Islamic Integrated Cognitive Behavioral Therapy (Sabki et al., 2018) is an adaptation of the Religiously Integrated Cognitive Behavioral Therapy (Islamic version), a manualized therapeutic approach designed by Pearce et al. (2015). Religiously incorporated cognitive behavioral therapy (CBT) for the treatment of depression in individuals with chronic medical illness integrates religious beliefs, practices, practices, and resources. From an Islamic perspective, Islamic Integrated CBT pertains to utilizing Hadiths and the Qur'an as guiding principles to facilitate clients' mental and behavioral transformation. The Qur'an made numerous references to trials and tribulations, affirming that believers who remained steadfast would receive spiritual guidance from God. An example of this concept can be found in the Qur'an: "Indeed, We shall try you with something of fear and hunger, some loss of life, property, or the results of your work. However, we shall bring good news to those who persevere patiently and say, "To God, we belong, and unto Him, we return" in the face of adversity. Such individuals are the ones upon whom divine blessings and mercy descend, and they are the ones who are granted guidance." (Al-Baqarah, 2:155-157). The therapy adheres to the fundamental principles of Shariah, including Tawheed, mindfulness, physical and mental well-being, social and community accountability, and avoidance and abstinence, in order to comply with Islamic teaching.

For a Muslim, the sources of anxiety and sadness extend beyond external influences and illogical thought processes, encompassing a deficient connection between the individual and Allah SWT. Depression and hopelessness arise from the belief that one's life will never experience any positive outcomes. According to Lalani et al. (2021), Muslims believe that Allah SWT consistently assists impoverished individuals, in need, or without strength. Many researchers worked on integrating CBT with religious beliefs to overcome the limitation that CBT is secular and to enhance its credibility.

Ghazali (1986), a renowned Islamic philosopher from the eleventh century, proposed that human nature is composed of four interrelated elements: the "aql" (intellect), the "qalb" (heart), the "nafs" (self), and the "ruh" (spirit). The "aql" is considered to be the cognitive aspect of human beings, primarily focused on rationality and logical reasoning (similar to the cognitions in Cognitive Behavioral Therapy), whereas the "qalb" is believed to be the emotional center where all feelings are housed. He did not address or try to explore the concept of the "heart" from a biological perspective (Kemahli, 2017). In contrast, Ghazali defined the "heart" in a manner that was focused on spirituality and psychology. He used this term to refer to the primary faculty responsible for acquiring knowledge and understanding of divine sources and attachment patterns (Çağrıcı, 2013). According to Ghazali, In order to achieve divine pleasure (al Saadah) in both this world and the next, the psycho-spiritual intervention must incorporate techniques for purifying the Soul (Tazkiyah al Nafs). Beyond actions themselves, intentions are of the utmost importance in Islam when it comes to determining the moral worth of an action. This signifies that devout individuals, have good intentions, and aspire to succeed are praised by God despite their inability to achieve success. To improve the self-esteem of depressive patients, such Islamic concepts may be incorporated into therapy. The therapist may compare the typical presumptions that generate distressing negative automatic thoughts with those of the client's Islamic faith or cultural practice. To alleviate their distress and enhance their condition, therapists can assist Muslim clients in focusing on the correct Islamic beliefs and practices (Sabki et al., 2018).

In Pakistan, the populace is more acquainted with medication and less acquainted with psychological intervention. Consequently, individuals promptly seek out primary care providers, obtain medicine, and promptly feel the alleviation of symptoms. Certain individuals employ religious cures to alleviate symptoms of depression, and it appears to be efficacious when patients actively engage in these practices and maintain their focus on them.

However, the lack of empirical data in this domain hinders the effectiveness of these therapies in producing significant results, so the objective of this study was to examine the effectiveness of Islamic Integrated Cognitive Behavioral Therapy on the levels of psycho-socio-spiritual distress and resilience in women with Polycystic Ovary Syndrome (PCOS).

Literature review

Polycystic ovary syndrome (PCOS) is a prevalent endocrine disorder that affects women of reproductive age, affecting 8.7% to 17.8% of the population (Facio et al., 2012). The etiology of PCOS remains uncertain. According to the available evidence, the phenotype of PCOS can vary considerably and is observed most frequently after puberty. Women diagnosed with polycystic ovary syndrome (PCOS) exhibit a range of phenotypic features, including hyperandrogenism, protracted anovulation, gonadotropin abnormalities, and hyperandrogenism (Spritzer, 2014).

Scabar-Morreale (2018) states that in 1935, Stein and Leventhal documented the presence of amenorrhea, hirsutism, an enlarged ovary volume, and numerous lesions in seven women. This initiation signified the commencement of the monitoring of polycystic ovarian syndrome (PCOS). Menstrual dysfunction and clinical or laboratory hyperandrogenism are the two fundamental components in establishing the diagnosis of this disease. The clinical diagnosis of the illness incorporates the factors delineated by Frank et al. (2010). Frequently, individuals who have received a diagnosis of polycystic ovary syndrome (PCOS) exhibit a restricted array of clinical manifestations. The most common clinical observations are menstrual abnormalities, which frequently occur at or shortly after menarche and may present themselves as oligomenorrhea, amenorrhea, polymenorrhea, or a regular menstrual cycle (Sam & Ehrmann, 2019). Clinical hyperandrogenism is characterized by the development of masculine characteristics and symptoms including hirsutism, acne, and androgenic alopecia. Approximately 66% of adolescents who have been diagnosed with polycystic ovary syndrome (PCOS) exhibit these symptoms (Witchel et al., 2019).

Polycystic ovary syndrome (PCOS) is frequently associated with hormonal dysregulation, which is distinguished by fluctuations in luteinizing hormone (LH), prolactin,

oestrogen, and serum androgens (androstenedione and testosterone, in particular). A considerable proportion of women who have received a diagnosis of polycystic ovary syndrome (PCOS) exhibit an increased ratio of luteinizing hormone (LH) to follicle-stimulating hormone (FSH), according to hormonal studies. Therefore, the metric commonly used to evaluate biochemical illness was the ratio of 2 to 1, and on occasion 2.5 (Homburg et al., 2013). A multitude of physiological processes and factors contribute to the occurrence of symptoms such as an irregular pulsatile pattern of luteinizing hormone (LH) and irregular menstrual cycles, which constitute the progression of hyperandrogenism. The pathological condition could potentially arise from a dysfunction in the hypothalamus, central nervous system, ovary, or adrenal glands. Based on the available data, it can be inferred that the prevalence of polycystic ovaries is highest among women aged 35 and below. Through numerous investigations, the incidence rate of this condition has been estimated in numerous groups (Yildiz et al., 2003). The prevalence of Polycystic Ovary Syndrome (PCOS) in different countries has been documented to vary significantly, ranging from 2.2% to 26%, according to demographic studies, criteria adoption, and methodology development (Suchta et al., 2016). The criterion for diagnosing this illness is not singular. In contrast, the diagnosis of this condition is frequently established through the integration of laboratory results, ultrasound evaluation of ovarian morphology, and clinical manifestations. Nevertheless, it is important to acknowledge that in order to diagnose this condition, three frequently used criteria are frequently applied (Tang et al., 2012). The National Institutes of Health (NIH) initially proposed the definition of the disease in 1990. The diagnostic criteria for the disease encompass clinical and biochemical indicators of hyperandrogenism or hyperandrogenemia, in addition to clinical symptoms of ovulation disorder including amenorrhea, oligomenorrhea, or infertility, as per the provided definition. Notably, the absence of non-classical adrenal hyperplasia is an additional diagnostic criterion (Azziz et al., 2009). The Endocrine Society

published diagnostic practice guidelines for polycystic ovary syndrome (PCOS) in October 2013. The ESHRE criteria, which require the presence of at least two of the following—androgen excess, ovulatory dysfunction, or polycystic ovaries—were recommended as a diagnostic approach for PCOS.

Clinical manifestations of PCOS

Menstrual disorders: Among the symptoms, an irregular menstrual cycle may be the most prevalent. Menstrual disturbances that began at the time of menarche are frequently a recurring occurrence in patients with PCOS. Certain women may experience oligomenorrhea, amenorrhoea, or menstrual bleeding that transpires every 35 days to 6 months. An additional repercussion of anovulatory menstrual cycles is infertility. The aetiology of the elevated abortion rate among women with polycystic ovary syndrome remains unknown (Sirmans & Pate, 2013).

Hyperandrogenic. Clinical manifestation of hyperandrogenism is an abundance of body hair distributed in a male-specific pattern. Ordinarily, hair is observed along the linea-alba of the lower abdomen, on the upper lip, chin, and nipples. A cumulative score of eight or higher on the Ferriman-Gallwey scale, which rates eleven body areas from zero (indicating no hair) to four (indicating virlieness), is deemed abnormal in adult Caucasian women (Housman & Reynolds, 2014).Acne arises in certain patients as well. Individuals with polycystic ovary syndrome (PCOS) who have seborrhoeic skin are more susceptible to developing acne due to the accumulation of dead skin cells, bacteria, and sebum within the pores of the skin, as opposed to those with normal or dry skin. The levels of androgens, including dihydrotestosterone, are frequently elevated in women with PCOS. This metabolite stimulates the production of sebum, which may result in clogged pores. In patients with PCOS, an increase in oil production manifests as oily hair (Yu et al., 2019).

Hyperandrogenism, increased muscle mass, and voice deepening are all associated with more severe forms of PCOS. Symptoms of hyperandrogenism may also be indicative of androgen-producing tumours, which should be considered as a differential diagnosis (Sirmans & Pate, 2013).

Obesity and metabolic syndrome: According to waist circumference, up to 80% of women with PCOS are rotund. One study (Dhesi et al., 2016) found a 43% prevalence of abdominal obesity among women with polycystic ovary syndrome, along with hyperlipidemia, elevated blood pressure, and hyperinsulinemia, despite the absence of a controlled investigation. The cardiovascular risk of women with PCOS should be determined through measurements of their BMI, fasting lipid, and lipoprotein levels.

Obstructive sleep apnea syndrome OSAS: Numerous women diagnosed with polycystic ovary syndrome (PCOS) have been found to have obstructive sleep apnea syndrome, an additional major risk factor for cardiovascular disease. It is crucial to inquire with patients regarding excessive diurnal somnolence (Fauser et al., 2012).

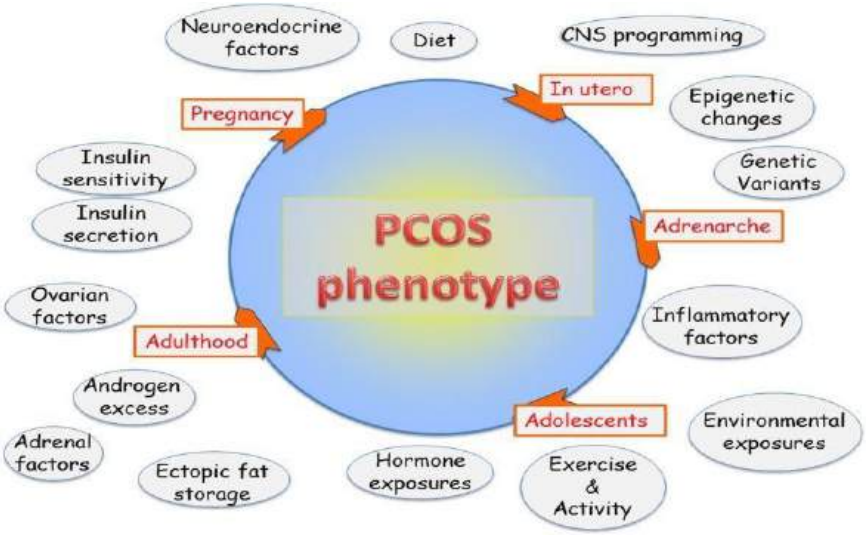
Etiology of Polycystic Ovary Syndrome

Genetic Factor. Familial clustering provides evidence of a genetic component, and twin studies have shown that genetically identical twins have a twofold higher concordance of polycystic ovary syndrome (PCOS) than non-identical twins (Alemzadeh et al., 2017). Despite extensive association studies, which have primarily concentrated on genes related to androgen synthesis and insulin metabolism, the inherited mechanism of polycystic ovary syndrome (PCOS) is still not fully understood (Yosipovitch et al., 2007). Promising candidate genes have been identified to some extent through recent endeavours employing contemporary mapping techniques. Thus far, two auspicious candidate genes have surfaced. The initial is a chromosomal locus that is linked to a heightened vulnerability to polycystic

ovary syndrome (PCOS). The subsequent is a gene associated with fat-mass and obesity, the polymorphism of which has been identified as being associated with PCOS (Badawy & Elnashar, 2011).

Figure 1

Factors effects on PCOS phenotypes



Note. **Factors contributing to PCOS phenotype. PCOS encompasses a woman's life cycle.Factors potentially impacting the pathophysiology of PCOS are shown in circles. Not all factors affect each individual. PCOS epitomizes a biologic network of interacting neuroendocrine, hormonal, metabolic, genetic, and environmental influences.Fro "Polycystic Ovary Syndrome: Pathophysiology, Presentation, and Treatment with Emphasis on Adolescent Girls"by Witchel.S and Oberfield.S, 2019, *Journal of the Endocrine Society*, 3(8), p.1543**

Environmental factors. In relation to the aetiology of Polycystic Ovary Syndrome (PCOS), environmental factors including weight gain and prenatal exposure to androgens have been implicated. Consequently, it is plausible that genetic predisposition confers a heightened vulnerability to PCOS, and that the syndrome will solely manifest in the presence of a particular environment—likely during early childhood or while the foetus is exposed. Androgen exposure during pregnancy On the basis of clinical material and experimental data

from animal studies, it is hypothesised that excessive foetal exposure to maternal androgens contributes to the development of the PCOS phenotype in offspring/children (i.e., congenital adrenal hyperplasia) (Gómez-Gil et al., 2012). Female infants delivered by mothers with polycystic ovary syndrome (PCOS) exhibited elevated levels of testosterone in the umbilical vein, surpassing those found in male infants. Nevertheless, the sole prospective investigation that examined the correlation between prenatal androgen exposure and the onset of polycystic ovary syndrome in adolescent females failed to establish any such link (Fauser et al., 2012).

Obesity. The phenotype of polycystic ovary syndrome (PCOS) is significantly impacted by obesity, and family studies have suggested that weight gain could potentially exacerbate the condition in predisposed individuals (Bray & Ryan, 2012). Generally, weight gain is correlated with symptom exacerbation, whereas weight loss typically results in symptom amelioration as well as resolution of endocrine/reproductive and metabolic disturbances. While the prevalence of obesity and overweight differs across nations, research conducted in the United States revealed that 24% of individuals with polycystic ovary syndrome were overweight (BMI 25-29.9 kg/m²) and 42% were obese (BMI >30 kg/m²). The mean BMIs of individuals with PCOS in the United Kingdom, Greece, Finland, and the Netherlands fall within the range of 25-29 kg/m², according to European studies. An estimated 10–40% of women with polycystic ovary syndrome are obese (BMI>30 kg/m²) on average and 40–90% are overweight (Pagotto, 2014) (Pagotto, 2014).

Dysfunction of the hypothalamus, pituitary, and ovarian axis .A considerable percentage of women diagnosed with polycystic ovary syndrome (PCOS) exhibit elevated levels of LH alongside normal or reduced levels of FSH, which gives rise to the aforementioned classic hormonal hallmark of an elevated LH/FSH ratio. There is a correlation between BMI and the prevalence of an elevated LH/FSH ratio; it is more

prevalent in individuals with PCOS who have a normal body weight and becomes less frequent as BMI rises (Caldwell et al., 2014). Elevated pulse frequency of the hypothalamic gonadotropin-releasing hormone (GnRH), which may promote β-subunit of LH production rather than β-subunit of FSH, and/or heightened pituitary sensitivity to GnRH stimulation account for the increase in LH. The ovaries favour the production of androgens from theca cells that contain LH receptors in response to the increase in LH. The elevated LH stimulation contributes to a portion of the increase in ovarian androgen production, which originates primarily from theca cells. It has been demonstrated that follicles of PCO contain a thicker theca cell layer, and that androgen hypersecretion and enhanced expression/efficacy of the main enzymes involved in androgen synthesis are confirmed (Messina et al., 2016). The follicular steroid secretion is the result of two-cell cooperation, in which theca cells stimulated with LH primarily produce androstenedione via pregnenolone, progesterone, and 17-OH-progesterone, in addition to the steroid precursor cholesterol. The process by which androstenedione is transformed into testosterone occurs via diffusion from the basal lamina to the granulosa cells (GC). Androstenedione undergoes aromatase, which is an enzyme abundant in this cellular compartment, to produce estrone or testosterone. By aromatization, testosterone becomes estradiol. Androgens, specifically androstenedione, are transported to the capillaries of the theca via diffusion. Thereafter, they may endure aromatization to produce estradiol in adipose tissue, liver, and skin, subsequent to their conversion to testosterone. Moreover, insulin stimulates theca cells' response to LH, which increases androgen production (47, 48). Furthermore, it is not uncommon for women with polycystic ovary syndrome to have hyperinsulinemia (Hill & Elias, 2018).

Consequences of PCOS

During the early stages of life, Polycystic Ovary Syndrome (PCOS) is linked to a higher likelihood of experiencing metabolic problems. Comorbidities refer to common risk

factors associated with cardiovascular disease (CVD), such as obesity, impaired glucose tolerance, type 2 diabetes (DM), dyslipidemia, and hypertension.

Obesity. Obesity is an often mentioned fear among individuals with PCOS, according to surveys. The incidence of obesity varies greatly among the examined populations and ethnicities, ranging from 50% to 80%. A systematic review and meta-analysis of rigorous research demonstrated that women diagnosed with polycystic ovarian syndrome (PCOS) exhibited a four-fold higher likelihood of developing obesity when compared to the control group. Moreover, the study by Katulski et al. (2018) revealed that Caucasian women had a higher risk compared to Asian women. It is important to highlight that studies have shown that women diagnosed with PCOS frequently have persistent overweight or obesity, with a divergence in their BMI trajectory beginning as early as the age of 5. Cross-sectional research offer evidence that the risk of being overweight and obese persists beyond the age of 40, and a small number of longitudinal studies suggest that weight also tends to grow as one gets older. The population in question is more likely to experience additional cardiometabolic issues due to their heightened inclination towards storing fat in the abdominal region. This tendency is particularly prominent in persons with the hyperandrogenic phenotype (García-Cáceres et al., 2018).

Diabetes Mellitus. Irrespective of their body mass index, women with PCOS have a threefold higher risk of impaired glucose tolerance. This risk is highest in Asia, North America, and South America. Although the risk of DM is also increased in this specific cohort of individuals in their reproductive years, the available evidence on these findings, regardless of weight, are conflicting. Multiple cross-sectional and longitudinal studies have shown that women aged 40 and above had a higher likelihood of developing type 2 diabetes mellitus, regardless of their body mass index. Several limited studies have examined the

likelihood of developing DM in teenagers with PCOS, and the findings suggest a usually low occurrence. A comprehensive cross-sectional study revealed that the likelihood of developing diabetes mellitus was similar among all four PCOS phenotypes, when analyzed based on phenotype (Goodman & Hajihosseini, 2015).

Obstetricity and reproduction. Insulin resistance associated with anovulation and endometrial hyperplasia is both heightened risks for women with PCOS. PCOS may be associated with a fourfold increased risk of endometrial cancer in premenopausal women. In comparison to clomiphene citrate, the ovulation-inducing agent letrozole is associated with higher live birth rates in women with PCOS who are trying to conceive (Stepto et al., 2013). Ovulation rate improvement may result from the concurrent use of metformin and these medications in a subpopulation of obese women. The prevalence of obesity can range between 50 and 80 percent, depending on the ethnicity and study population analysed (e.g., clinical cohorts versus population-based studies). In contrast, there is no evidence to suggest that metformin reduces the risk of gestational diabetes (GDM); therefore, its application should be restricted to pre-pregnancy for the purposes of metabolic regulation and to aid in weight reduction. Women diagnosed with PCOS face an elevated risk of developing pregnancy-induced hypertension, miscarriage, preeclampsia, and gestational diabetes mellitus (Wynn et al., 2013).

Behavioral/emotional. Psychiatric disorders are more prevalent among individuals with behavioral/emotional PCOS. Cross-sectional studies reveal an elevation in symptoms of depression and anxiety ranging from moderate to severe, whereas a limited number of longitudinal studies provide evidence for an increased risk of developing depression and anxiety. Nevertheless, the extent to which depressive and anxious symptoms persist beyond the fourth decade among adolescents is still poorly understood. Nevertheless, emerging

research suggests that psychological distress may persist indefinitely (Deeks et al., 2010). Additionally, there is an increased prevalence of disordered diet and body image distress among women with PCOS. It is noteworthy that in the latter investigation, anxiety and depressive scores were predicted by multiple dimensions of body image distress. This suggests that ameliorating body image may have the potential to reduce symptoms of anxiety and depression. The coexistence of body image distress and eating disorders exacerbates the challenge of weight loss, underscoring the criticality of regular screening for these conditions and implementation of treatments like cognitive behavioural therapy (Lim et al., 2018).

The quality of life. PCOS is accompanied by comorbidities and symptoms that burden women. Women diagnosed with Polycystic Ovary Syndrome (PCOS) exhibit a lower health status compared to women without PCOS. Health professionals and women alike should be cognizant of the detrimental effects of PCOS on health-related quality of life, which appears to persist until the later stages of reproduction (Li et al., 2018).

The cardiovascular system. Fewer studies have examined the correlation between obesity, impaired glucose tolerance, and the risk of dyslipidemia, diabetes mellitus, and metabolic syndrome in postmenopausal women with PCOS. The validity of the findings is compromised as the majority of the available data in perimenopause and beyond is derived from small cross-sectional studies that included women with a presumptive diagnosis of PCOS. To ensure that patients receive appropriate counselling, it is necessary to evaluate the prevalence of conventional CVD biomarkers across various phenotypes of PCOS. In adolescent women with PCOS, there is some evidence of an increase in subclinical atherosclerosis. There have been reports of increased carotid intima media thickness measurements, which correspond to data indicating a heightened susceptibility to stroke and myocardial infarction. More longitudinal studies examining the incidence of cardiovascular

events in these populations are ultimately required. While population-based studies have yielded some evidence suggesting that late reproductive-age women with polycystic ovary syndrome (PCOS) have a higher risk of cardiovascular events, the majority of these studies are incapable of adequately assessing these outcomes and exclude menopausal women who have clearly defined PCOS (Samuel & Shulman, 2016).

Theoretical Framework of the present study

Interpersonal Theory. Interpersonal theories posit that dysfunctional patterns of interaction are the root cause of psychological difficulties (Carson et al., 1996). They emphasize that our relationships with others shape a significant portion of who we are as social beings. Psychological distress is characterized by maladaptive relationship behavior that is the result of past or present unsatisfactory relationships.

According to Sullivan (1953), interpersonal relationships play a crucial role in shaping one's self-concept and emotional stability. When these relationships are characterized by empathy, support, and mutual respect, individuals tend to experience psychological well-being. Conversely, dysfunctional relationships marked by conflict, neglect, or abuse can contribute to psychological distress (Sullivan, 1953).

Psychological distress often stems from problematic interpersonal interactions. For instance, individuals who experience chronic conflict or lack of support in their relationships may develop symptoms of anxiety or depression. Research supports this linkage; a study by Hofmann et al. (2010) found that interpersonal difficulties are strongly associated with various forms of psychological distress, including depression and anxiety. The theory suggests that negative interpersonal experiences disrupt an individual's ability to form secure attachments and achieve emotional stability, leading to heightened psychological vulnerability (Sullivan, 1953).

Social distress, on the other hand, relates to how individuals navigate their social environments and the quality of their social interactions. Sullivan's theory underscores that social functioning is crucial for mental health and well-being. Social distress can arise from issues such as isolation, rejection, or strained social networks. For example, social support is widely recognized as a protective factor against stress. When individuals lack a supportive social network, they are more susceptible to experiencing social distress (Thoits, 2011). Sullivan's theory aligns with these findings, highlighting that the quality of social relationships significantly influences one's capacity to manage stress and maintain mental health.

Furthermore, interpersonal theory has implications for understanding spiritual distress. Spiritual distress refers to a sense of disconnection or turmoil related to one's beliefs, values, and sense of purpose. According to Sullivan's framework, spiritual well-being is interconnected with interpersonal relationships; a lack of meaningful connections or supportive relationships can exacerbate spiritual distress (Sullivan, 1953). For instance, individuals who face interpersonal conflicts or isolation may struggle with existential questions and feel a diminished sense of purpose. This linkage suggests that healthy interpersonal relationships can play a pivotal role in fostering spiritual well-being and mitigating spiritual distress.

Studies indicate that women diagnosed with Polycystic Ovary Syndrome (PCOS) may encounter disrupted emotional regulation (Marsh et al., 2013). He specifically report that women with PCOS who are insulin-resistant exhibit specific differences in emotional processing within the prefrontal cortex, compared to women without PCOS. This indicates a possible biological difference that affects emotion regulation in women with and without

PCOS. Approximately 30.6% of the PCOS population exhibited a compromised and unfavorable depiction of interpersonal relationships, as shown by higher scores on the Personal Health Record (PHR). Personal interactions were perceived as hostile, rather than cooperative (Fugal et al., 2022).

Polycystic ovary syndrome (PCOS) can have a profound emotional impact on romantic relationships. Women diagnosed with Polycystic Ovary Syndrome (PCOS) encounter a decline in their overall well-being, heightened psychological problems, and a decrease in sexual satisfaction when compared to individuals without the condition (Pinar, 2021). The physical manifestations of PCOS, such as obesity and hirsutism, are specifically linked to diminished physical components of quality of life and lower sexual satisfaction (Nappi & Tiranini, 2022). All of these situations makes relationship stresful. Interpersonal stress, which refers to stressful interactions, frequently leads to severe mental health issues (Bancila et al., 2016).

From this particular standpoint, distress can be mitigated via interpersonal therapy, which emphasizes resolving issues that arise within relationships and assisting individuals in attaining more fulfilling connections by acquiring additional interpersonal competencies.

Cognitive Theory. As per the cognitive paradigm, psychological distress is mostly caused by negatively biased cognition (Barlow & Durand, 1999). Distressed women who are afflicted with Polycystic Ovary Syndrome (PCOS) often have a pessimistic outlook on themselves, their surroundings, and their prospects for the future (Weinrach, 1988). They see themselves as unlovable, insufficient, deficient, and worthless. These schemas are acquired by women with fertility issues as a result of various adverse experiences, including parental loss, peer rejection, bullying, criticism from instructors or parents, parental depression, and rejection by peers. Cognitivists hold that individuals construct the world within their minds and endeavor to comprehend the phenomena occurring in their environment (Comer, 2010).

Whether the environment is beneficial or detrimental to us is contingent on the efficacy of our beliefs. Therefore, constructive thoughts result in adaptation, while detrimental thoughts and the internal realm are distressing and detrimental (Dryden & Ellis, 2001). Failure to function normally may result from a variety of cognitive impairments. Certain individuals may develop unsettling and erroneous attitudes and presumptions (Brown & Beck, 2002). Further, cognitivists assert that illogical thought processes contribute to aberrant functioning. For instance, Beck (2002) asserts that women with PCOS consistently engage in illogical thought processes and reach self-defeating conclusions. Overgeneralization, which occurs when individuals form a chain of negative conclusions based on a single insignificant event, is a prevalent illogical thought associated with depression (Comer, 2010). As a result, treatment should center on assisting clients in substituting irrational and self-defeating beliefs with more rational ones, to promote healthy adjustment (Beck, 2002).

Social distress theory. A theoretical framework that provides insight into how social stressors can result in unfavorable consequences is Pearlin's stress process model (1989), which is further elaborated upon by Turner (2010). Pearlin proposed that the phenomenon of social stress could be comprehended as an integration of three primary conceptual domains: the origin of stress, the factors that mediate and moderate stress, and the outward display of stress. Stress may manifest in various ways, including physical, psychological, or behavioral manifestations. The stress theory is predicated on the notion that the impacts of various stressors and stresses are not restricted to a specific disorder. A mediating variable elucidates how or rationale behind the relationship between two variables, while moderators influence the intensity of the association between an independent variable and the outcome (Baron & Kenny 1986). Within Pearlin's stress process model, self-concepts, coping strategies, and social support are elements that function as mediators or moderators between stress exposure and manifestation. An aspect of the model that Turner enhanced was the capacity to

incorporate a broader spectrum of resources into the investigation of stress and negative consequences. Turner (2010) proposes an elaborate theoretical model that posits a connection between mental health issues and specific constructs, namely emotional dependence, mattering (i.e., the belief in one's significance to others), self-esteem, and sense of control (i.e., mastery), because these constructs have demonstrated either mediating or moderating effects about mental health problems. Subsequently, stress exposure emerges from the personal circumstances of individuals and can be linked to societal frameworks that establish stratification based on demographic characteristics such as gender, age, social and economic standing, and race and ethnicity (Turner 2010). Additionally, Pearlin (1989) argued that distressing experiences occur within the context of social roles, and that a role is inextricably linked to a larger set of roles; for instance, parental responsibilities require the presence of a child. Roles serve as the foundation for critical interpersonal connections. In 1989, Pearlin provided a summary of the manner in which these notions converge to shape a potentially distressing experience for an individual. He asserted that interconnected tiers of social organization—including social stratification, social institutions, and interpersonal relationships—shape and organise the experiences of people, which subsequently may lead to stress. Consequently, the individual's potentially distressing experience may have its origins in the social order. Structural contexts can influence stress and, consequently, the emergence of psychological distress. The aforementioned recognition of the significance of social structure demonstrates how an issue that could be deemed personal in nature is, in fact, a manifestation of societal circumstances (Aneshensel & Avison, 2015).

As per the stress process model (Turner 2010), stress exposure can manifest in various ways, including lifelong traumas, chronic illnesses, or recent stressful occurrences. For adults, this can include school transitions; for children and adolescents, it can involve job loss or divorce. In the context of life events, it is the nature of the change—particularly those that

are uncontrolled, undesirable, unscheduled, or non-normative—rather than the change itself that may cause stress in an individual (Pearlin 1989). A fundamental element of stress exposure, as posited by both Pearlin and Turner, takes the shape of persistent stress. Chronic strains, which manifest as stressors, originate from significant social roles and social role sets (Pearlin, 1989). These strains have been associated with challenges in friendships, employment, matrimony, and parenthood. In addition to chronic strains associated with significant social duties, Pearlin (1989) acknowledged that living in or near poverty or having a serious chronic illness can also cause severe strains. This theory posits that stress is a process in which tensions and occurrences are interconnected in a limited number of ways to produce a stressful experience. Illnesses such as Polycystic Ovary syndrome have the potential to induce protracted strains, which in turn may give rise to events; furthermore, events and strain mutually provide contextual meaning (Pearlin 1989). Pearlin (1989) further expounded upon the significance of values, which pertain to that which is deemed socially desirable, coveted, and good, in the context of stressor identification and specification.

Social distress often manifests as psychological distress, which includes conditions like anxiety, depression, and emotional instability. According to Pearlin's stress process model, social distress arises from stressful social conditions that affect an individual's mental health (Pearlin, 1989). Recent studies confirm this relationship, showing that negative social experiences can lead to significant psychological problems. For instance, research by Kessler et al. (2021) found that chronic social stressors, such as persistent interpersonal conflict and discrimination, are strongly associated with increased levels of psychological distress. This connection is explained by the theory's emphasis on how adverse social conditions can disrupt emotional equilibrium and lead to maladaptive coping mechanisms (Thoits, 2019). Individuals exposed to ongoing social stress may experience a range of psychological

symptoms, including mood disorders and heightened anxiety, as a result of the sustained strain on their mental health.

Social distress itself is characterized by challenges such as social isolation, rejection, and difficulties in maintaining healthy relationships. The theory suggests that the quality of social interactions significantly impacts an individual's social well-being. Recent research underscores the impact of social distress on overall functioning. For example, Hawkley and Cacioppo (2022) highlight that social isolation and lack of social support are critical factors contributing to social distress. This distress can lead to diminished social functioning, as individuals struggle with feelings of loneliness and disconnection. Pearlin (1989) argues that inadequate social support and negative social interactions can impair one's ability to navigate social environments effectively, leading to a decrease in life satisfaction and social engagement. The link between social distress and impaired social functioning emphasizes the importance of robust social networks for maintaining a healthy and balanced social life.

Spiritual distress, while less directly studied, is also influenced by social factors. Spiritual distress involves feelings of disconnection, existential angst, or a crisis of faith, and can be exacerbated by negative social experiences. Recent research shows that adverse social conditions can affect an individual's spiritual well-being. For instance, Pargament et al. (2021) found that individuals who experience social exclusion or conflict may struggle with spiritual distress, as these social stressors can lead to existential questioning and a diminished sense of purpose. The theory suggests that supportive social relationships play a crucial role in fostering spiritual well-being by providing a sense of belonging and purpose (Smith et al., 2023). Thus, negative social interactions can undermine spiritual health by contributing to feelings of isolation and existential uncertainty.

Social distress theory offers a comprehensive framework for understanding how adverse social conditions impact psychological, social, and spiritual well-being. Psychological distress is closely linked to social distress, as negative social experiences can lead to various mental health issues, including anxiety and depression. Social distress itself affects social functioning, with isolation and lack of support contributing to difficulties in maintaining healthy relationships and overall life satisfaction. Additionally, social factors can influence spiritual distress, as negative social conditions may exacerbate existential concerns and feelings of disconnection. Recent research continues to support these linkages, emphasizing the importance of positive social interactions and support in mitigating various forms of distress and promoting overall well-being.

Model of Spiritual distress

Sound Heart Model. The Sound Heart Model (SHM) was developed by Asadzandi in 2023. Religiosity, as delineated in Islamic teachings and the philosophical perspectives of Abrahamic faiths, encompasses a profound affection and devotion towards God and His created world. The universe was formed by the loving and affectionate hand of God. Almighty God intended for human beings to attain divine mercy (Asadzandi et al., 2023). According to Tabatabai (2013), religious evidence of Islam posits that the worth of human deeds is contingent upon the intent behind those deeds. As stated by Abraham, peace be upon him, "Say, Indeed, my prayer and worship, my life and death are for the sake of Allah, the Lord of all the worlds" (verse 162/Surah An'am)—Islam places great emphasis on actions that seek to bring one closer to God. As a hermeneutic paradigm, the Sound Heart paradigm thus emphasises the purpose of action. It considers the intentions of individuals when attempting to explain the origins of spiritual health disorders and spiritual pathology (Asadzandi, 2023, 2022). As He did with His prophets, God puts humanity to the test with difficulties, events, and afflictions throughout their lives (Tabatabai, 2013). Certain

individuals are immune to spiritual distress amidst adversity due to their strong and unshakeable relationship with God. They consider themselves genuine adherents of religious spirituality due to the fact that it entails directing one's focus towards the intricacies of life circumstances and the inherent value concealed within adversities (Ghalyanee et al., 2021). Focusing on the "kingdom of the world of creation" and "the Lordship of God, whose Lordship is accompanied by love," is the essence of religious spirituality (Zoheiri et al. 2022). These individuals possess both spiritual health and a robust spiritual disposition. The manner in which these individuals interact with themselves, others, and the world of creation is guided by a secure attachment to God (Asadzandi et al. 2022). Secure attachment to God and a relationship with God founded on love and a sense of belonging are prerequisites for attaining this form of spirituality (Asadzandi & Kalal, 2023b). Asadzandi (2023b) posits that the development of a healthy spiritual personality is influenced by "the type of knowledge of God" and "the type of image of God," which in turn determines the manner in which one develops a strong emotional connection to God. According to her, emulating the prophets as a spiritual guide ensures accurate understanding of God, a favourable perception of God, and a secure connection to God (Asadzandi & Kalal, 2023). To follow the prophets is to develop a secure attachment and affection for them. Therefore, spiritual training grounded in the lives of the Prophets is necessary to progress through the phases of spirituality (Asadzandi et al., 2020). In contrast to the aforementioned group, there exists another cohort that encounters spiritual distress in the midst of life's adversities (Asadzandi, 2017). The spiritual distress experienced by individuals who suffers from chronic illnesses expiriences the feelings of hopelessness regarding God's mercy, estrangement from Him, discontentment with one's destiny, ire, resentment, vindictiveness, envy, sorrow over past losses, apprehension regarding the future and distress over mortality (Asadzandi et al., 2022).As a result, the field of spiritual pathology investigates the socio-cultural elements that disrupt "secure attachment

to God" and communication with God as a result of religious misinterpretation and a negative perception of God (Asadzandi & Kalal, 2022b). This aligns with Ellison's (2013) definition of spiritual pathology as "troubled relationships with God." Additionally, attachment theory provides insight into the issue of troubled relationships, which is defined further by encounters with insecure Divine-human interaction (Granqvist, 2008). Every crisis in life can be defined as a spiritual crisis. It is a unique experience that compels the patient to explore the meaning and sufferings of his life(Bingham, 2007, Asadzandi, 2018). By believing in God's mercy, love, and wisdom, life events can be introduced as divine tests and spiritual experiences (Verse 54 of Surah an am)(Asadzandi, 2017, 2018). This model provides guidance to patients and their families to focus on hidden aspects of their lives.(Sura Yasin, Verse 83) (Asadzandi, 2018). This focus can only be achieved by strong faith, a good relationship with God, and improving their relationship with self, others, and the universe (Asadi et al., 2014), through increased self-care, family care, home care, and by respecting personal beliefs (Taheri et al., 2014).

Theoretical framework of resilience

Resiliency Theory. Resilience can be defined as a dynamic set of abilities employed in the face of adversity or substantial hardship (Zauszniewski, Bekhet & Suresky, 2010). These abilities may include a variety of cognitive and affective components, including a positive outlook, feelings (e.g., humour), and behaviours (e.g., the ability to utilise social support) (Simpson & Jones, 2013). Additionally, the resilience theory established by Ouellette and DiPlacido (2001) informs this investigation. Risk and protective factors influence resilience, according to the resilience theory (Bekhet & Suresky, 2009). Risk factors encompass elements such as occupational restrictions, stigma, and isolation, which present a potential danger to an individual's mental health and resilience. Concerning cognition, an instance of a risk factor might be when an

individual assesses their circumstances as one that is burdensome, life-threatening, and distressing. Protective factors are elements that promote and facilitate the development of resilience. They have a tendency to prioritise positive cognitions. Positive outcomes are produced when an individual's response to distressing and problematic life events is enhanced by the aforementioned factors. Seven primary factors are purported to influence the capacity to overcome adversity and achieve the following benefits: increased resilience, strength, flexibility, and health (Zausniewski et al., 2010).

Acceptance. Acceptance pertains to the capacity to endure what is considered undesirable, as well as the awareness of its underlying significance and worth. Acceptance has the capacity to alter one's perception of a given situation.

Hardiness. Hardiness encompasses intrinsic qualities including cognitive and behavioural adaptability, stamina, self-discipline, and dedication. The cultivation of resilience is facilitated by the capacity to confront and resolve challenges while providing care for a family member who is afflicted with a mental illness.

Mastery. This occurs when the individuals and family members confronted with the issue hold the conviction that they possess some degree of control over the situation, or alternatively, that they are the architects of their own destiny. It promotes a perception of competence and adaptation as a coping mechanism.

Optimism and Hope. It has been stated that optimism and hope are essential components of coping. It is generated via positive recollections and interpersonal connections, which enable the emergence of novel understandings and a sense of direction.

Self efficacy. Self-efficacy refers to an individual's conviction regarding their own competence and confidence in effectively managing stressful situations. Higher levels of self-efficacy have been correlated with more effective problem management.

A person has a sense of coherence when they perceive the world as meaningful and manageable. It pertains to an orientation and global outlook on life. It is the manner in which a distressed individual and all family members collaborate to manage the tension and strain of a given difficult situation by combining their strengths and shared values. Resourcefulness pertains to the judicious application of positive cognitions in order to effectively manage challenges by means of positive emotions, thoughts, and actions. It also denotes the disposition to solicit assistance from others in times of need. A resilient survivor can be described as an individual who possesses both strengths and weaknesses, but primarily possesses positive attributes such as initiative, independence, positive interpersonal relationships, and humour (Zausniewski et al., 2010).

Resiliency theory suggests that individuals with high levels of resilience can effectively manage and mitigate psychological distress. Psychological distress, including conditions such as anxiety, depression, and stress, often arises from exposure to adverse life events. Resilience theory posits that resilience involves protective factors such as coping skills, social support, and positive outlooks that help individuals navigate psychological challenges (Masten, 2021). For instance, a study by Bonanno et al. (2020) found that individuals who exhibit high resilience are better equipped to handle stress and recover from traumatic events with fewer psychological symptoms. The theory highlights that resilient individuals are likely to use adaptive coping strategies, maintain a sense of control, and retain their psychological well-being even when faced with significant stressors (Fletcher & Sarkar, 2019).

The concept of resilience is also crucial in understanding social distress, which includes issues such as social isolation, rejection, and relationship difficulties. Resilient individuals often have strong social networks and effective interpersonal skills that help them

manage and reduce social distress (Luthar & Cicchetti, 2022). For example, research by Masten and Cicchetti (2016) indicates that social support is a key component of resilience, enabling individuals to better handle social stressors and maintain their social functioning. Social resilience involves not only having supportive relationships but also the ability to seek help and maintain positive social interactions despite challenges (Ungar, 2021). This framework shows how resilience can buffer against the negative effects of social distress, helping individuals to sustain their social networks and navigate interpersonal difficulties effectively.

Spiritual distress, characterized by a sense of existential crisis, meaninglessness, or disconnection from one's spiritual beliefs, can also be influenced by resiliency. Resilience theory provides insight into how individuals cope with spiritual distress by leveraging their inner resources, faith, and spiritual practices (Pargament et al., 2022). For instance, research has demonstrated that individuals with strong spiritual beliefs and practices often exhibit higher levels of resilience, which helps them address and overcome spiritual distress (Koenig, 2020). A study by Smith et al. (2023) found that spirituality and religious faith can serve as sources of resilience, offering individuals a framework for understanding and coping with existential challenges. This resilience helps individuals maintain a sense of purpose and connection, even when faced with spiritual doubts or crises.

Resiliency theory offers a comprehensive approach to understanding how individuals cope with psychological, social, and spiritual distress. Psychological distress is often mitigated by resilience through the use of adaptive coping strategies and maintaining emotional stability. In the realm of social distress, resilience involves leveraging social support and maintaining strong interpersonal relationships despite challenges. Spiritual distress, while more abstract, is also influenced by resilience, as spiritual beliefs and practices

can provide a source of strength and purpose in the face of existential difficulties. Overall, resiliency theory emphasizes the importance of adaptive mechanisms and supportive factors in overcoming adversity and promoting well-being across different dimensions of life.

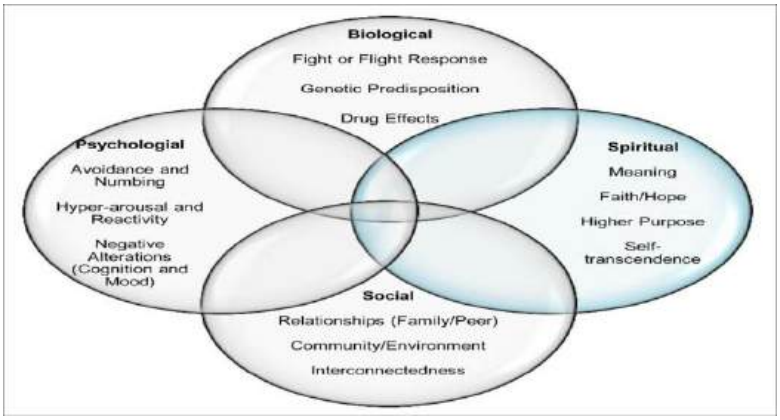
Bio-Psycho-Social-Spiritual Model. The present study is based on Bio-psycho-social-spiritual model. Polycystic ovary syndrome, being an amalgam of numerous disorders, requires proper treatment that might be further complicated by financial constraints, which can also contribute to psychological distress. According to Maslow's Hierarchy of needs, the most fundamental needs for each human are the earth (referring to basic physiological demands) and finance (referring to economic security). Each disruption or failure in meeting these needs might potentially trigger psychological disturbances (Karla, 2019).

In George Engel's seminal work, he aimed to encourage physicians to reevaluate their biological approach to medicine. The biomedical model emphasizes reductionism, which involves understanding disorders entirely in terms of deviations from biological standards. Nevertheless, there exists a reciprocal interaction between the intellect and the body. However, the biological approach fails to consider the social, psychological, and behavioral aspects of sickness. Therefore, Engel suggested the utilization of the biopsychosocial perspective (BPS) as an alternative (Hatala, 2013).

Engel (1992) posits that a patient's experience of sickness is influenced by a combination of biological, psychological, and social elements that operate on many levels of the system, such as the societal national level, cultural-subcultural level, community, family, and individual level. The biopsychosocial model, employing a holistic methodology, successfully resolved the dichotomy between the mind and body.

Figure 2.

Biopsychosocial spiritual Model



Note: **Bio-psycho-socio-spiritual odel given by Sulasy, defining four factors effect onthe Health of individuals. Fro "A biopsychosocial-spiritual model for the care of patients at the end of life"by Sulmasy.D, 2002, *The Gerontologist* 42(3), p.28**

Sulmasy (2002) defined holistic health as the comprehensive consideration of a patient's physical, psychological, social, and spiritual aspects in healthcare. Therefore, because of the absence of a spiritual dimension, Biopsychosocial fails to conclude the idea of health holistically. Consequently, a spiritual aspect was then incorporated to create the Biopsychosocial-Spiritual (BPSS) paradigm. This supplement serves to illustrate the influence that beliefs, the construction of meaning, and spiritual activities have on the processes related to health.

The biopsychosocial-spiritual model offers a comprehensive framework for understanding the multifaceted nature of human health and distress. This model integrates biological, psychological, social, and spiritual dimensions, providing a holistic perspective on how these factors interact to influence well-being. By examining how each component

interacts with the others, we can gain deeper insights into psychological, social, and spiritual distress and how these aspects are interrelated.

The biological dimension of the biopsychosocial-spiritual model emphasizes the role of genetics, neurochemistry, and physiological processes in shaping an individual's health. Biological factors can significantly influence psychological distress, such as the role of neurotransmitters in mood disorders. Recent research has demonstrated that imbalances in neurotransmitters like serotonin and dopamine are linked to conditions such as depression and anxiety (Kendler et al., 2021). Additionally, genetic predispositions can make individuals more susceptible to psychological distress, as evidenced by studies showing that family history and genetic markers are associated with higher risks of mental health disorders (Sullivan et al., 2022).

The psychological dimension focuses on cognitive, emotional, and behavioral factors. Psychological distress, such as anxiety and depression, often arises from maladaptive thought patterns, emotional dysregulation, and ineffective coping strategies. Cognitive-behavioral theories highlight how distorted thinking and emotional responses contribute to psychological distress (Beck, 2020). For example, individuals with negative self-beliefs or high levels of stress may experience heightened symptoms of anxiety and depression (Kendall et al., 2021). Recent studies further emphasize the importance of psychological resilience and adaptive coping strategies in mitigating distress and enhancing emotional well-being (Fletcher & Sarkar, 2022).

The social dimension of the model addresses how relationships, social networks, and environmental factors impact health. Social distress, including isolation, conflict, and lack of support, can contribute significantly to psychological distress. Research indicates that inadequate social support and negative social interactions are associated with increased risks

of mental health issues (Thoits, 2020). For instance, individuals who experience social rejection or ongoing interpersonal conflicts are more likely to develop symptoms of depression and anxiety (Hawkley & Cacioppo, 2021). Furthermore, supportive social networks can act as protective factors, buffering individuals from stress and promoting overall mental health (Umberson & Montez, 2020).

The spiritual dimension encompasses an individual's sense of purpose, meaning, and connection to something greater than themselves. Spiritual distress often involves a loss of meaning, existential crises, or a disconnection from spiritual beliefs. Research suggests that spiritual well-being is closely linked to overall health and can influence psychological distress (Pargament et al., 2022). For example, individuals who engage in spiritual practices or have strong spiritual beliefs may experience greater resilience and a more profound sense of purpose, which can help mitigate psychological and social distress (Koenig, 2020). Conversely, spiritual distress can exacerbate feelings of isolation and existential angst, contributing to psychological difficulties (Smith et al., 2023).

The biopsychosocial-spiritual model highlights the complex interplay between biological, psychological, social, and spiritual factors. For instance, a person experiencing social isolation (social dimension) may face increased psychological distress (psychological dimension) and may also experience spiritual distress due to a lack of meaningful connections or purpose (spiritual dimension). Conversely, someone with strong social support and effective coping strategies might better manage biological vulnerabilities and maintain psychological and spiritual well-being (Fletcher & Sarkar, 2022).

The biopsychosocial-spiritual model of healthcare may be particularly relevant to Muslims, as Islam maintains a holistic view of medicine in which the mind, body, and spirit are all critical in the prevention and treatment of diseases (Saniotis, 2018). First and foremost,

the human being is generally viewed as an integrated whole that includes the physical body (jasd), heart (qalb), spirit (ruh), soul (nafs), and mind (aql) (Ahmed, 2000; Hassan, 2015). Thus, within Islamic thought, an individual can be conceptualized as a complex composite of social, physical, physiological, intellectual, emotional, and spiritual dimensions (Hassan, 2015). An influential, prominent early Muslim physician, Ibn Sina, who wrote extensively on medicine, philosophy, and Islamic theology, emphasized that humans have structural, functional, and spiritual levels, all of which are interconnected and need to be addressed in order to best treat an individual (Ahmed, 1996). An Islamic approach to health and illness may promote an integration of Prophetic medicine (teachings of the Prophet and Qur'an) and scientific medicine (Nagamia, 2010); within this framework, a harmonious integration of both science and religion may become he ultimate source of preserving or restoring one's health (Johnstone, 1998). From an Islamic perspective, both the causes and cures of illnesses involves both medical and spiritual considerations. Thus, a sole reliance on bodily health while overlooking spiritual health and the relation between the two dimensions becomes inherently contradictory of Islamic principles, though it is important to keep in mind that such an approach will most likely depend on individuals' level of observance towards Islamic principles. Several studies have found empirical support for Muslims' preference for a holistic approach to health. For example, researchers have found that Muslim immigrants in the United States have described discordant beliefs with the Western biomedical model regarding health and illness (Pavlish, Noor, & Brandt, 2010); specifically, Somali women reported health and illness to be related to everyday situational factors such as being engaged in productive activities and maintaining a positive relationship with oneself, one's family, and God (Pavlish et al., 2010). Likewise, when examining differences among South Asian immigrants, Muslim South Asian immigrants were more likely to discuss spiritual factors in the maintenance of good health and to describe a more holistic model of health in comparison

to South Asian immigrants from other religious traditions (Tirodkar et al., 2011). Among Afghan Muslim older adult participants recruited from a community senior center in the United States, researchers found a strong consensus that participants' health beliefs and practices were closely related to their Islamic beliefs and practices (Douglas, Sacks, & Yeo, 2004; Ahaddour & Broeckaert, 2018).

Distressed women who are afflicted with Polycystic Ovary Syndrome (PCOS) often have a pessimistic outlook on themselves, their surroundings, and their prospects for the future (Weinrach, 1988). They see themselves as unlovable, insufficient, deficient, and worthless. These schemas are acquired by women with fertility issues as a result of various adverse experiences; including parental loss, peer rejection, bullying, criticism from instructors or parents, parental depression, and rejection by peers. Cognitivists hold that individuals construct the world within their minds and endeavour to comprehend the phenomena occurring in their environment (Comer, 2010). Whether the environment is beneficial or detrimental to us is contingent on the efficacy of our beliefs. Therefore, constructive thoughts result in adaptation, while detrimental thoughts and the internal realm are distressing and detrimental (Dryden & Ellis, 2001). Failure to function normally may ensue from a variety of cognitive impairments. Certain individuals may develop unsettling and erroneous attitudes and presumptions (Brown & Beck, 2002). Further, cognitivists assert that illogical thought processes contribute to aberrant functioning. For instance, Beck (2002) asserts that women with PCOS consistently engage in illogical thought processes and reach self-defeating conclusions. Overgeneralization, which occurs when individuals form a chain of negative conclusions based on a single insignificant event, is a prevalent illogical thought associated with depression (Comer, 2010). As a result, treatment should centre on assisting clients in substituting irrational and self-defeating beliefs with more rational ones, so as to promote healthy adjustment (Beck, 2002).

According to Social distress theory, stress exposure emerges from the personal circumstances of individuals and can be linked to societal frameworks that establish stratification based on demographic characteristics such as gender, age, social and economic standing, and race and ethnicity (Pearlin 1989; Turner 2010). Women with polycystic ovary syndrome are experiecning financial constraints and the negative stigma of infertility associated with PCOS. All these factors influence on social functioning of women and consequently, the emergence of psychological distressworsens their mental and physical health (Turner, 2010).

To summarize, the literature review demonstrates that spirituality plays a crucial role in the well-being and social standing of patients. Moreover, a study has suggested that there is a detrimental influence of spiritual distress on the overall life quality of patients with chronic illnesses, Such as Polycystic ovary syndrome that creates various spiritual distresses (Riyahi et al., 2012) like distrust on God's mercy, fear of the future, grief, fear of death, dissatisfaction with life, and depression (Mazandarani et al., 2018). That's why, it has become important to implement spiritual-based therapies to help patients with spiritual distress and needs (Puchalski et al., 2019).

Religion and spirituality (R/S) play crucial roles in individuals' lives and frequently exert a substantial influence on their physical and psychological well-being. Based on the findings of the Pew Research Center in 2015, it was discovered that 89% of adult Americans acknowledge their belief in the existence of God. Additionally, 63% of respondents expressed an unwavering faith in the existence of God. 53% of individuals state that religion holds significant importance in their lives, while 37% regularly participate in religious services every week. Several studies have indicated a positive correlation between religious or spiritual involvement and health outcomes (Carmody et al., 2008; Contrada et al., 2004; Hill

et al., 2005; Hill et al., 2006; Yakir et al., 2007). An analysis of 3,300 research done from 1872 to 2010 determined that engaging in religious or spiritual practices can result in improved mental well-being, enhanced capacity to cope with challenges, and reduced susceptibility to physical ailments. For many people, religious and spiritual beliefs might potentially alleviate stress, amplify pleasant feelings, provide significance to difficult experiences, and strengthen one's sense of purpose (Koenig, 2012). Given the increasing data about the correlation between religion/spirituality (R/S) and health outcomes, clinicians must acknowledge and address their clients' R/S beliefs during psychotherapy. Spirituality and therapy have common objectives. Both religion/spirituality treatment and therapy strive to enhance one's sense of identity, address existential concerns, and foster social support networks (Weisman et al., 2009). Therapy aims to enhance the strengths and resources of clients, and religion and spirituality frequently serve as a significant source of strength for many clients (Davis, 2013). According to a survey conducted on mental health clinics in the United States, over 50% of clients seeking therapy expressed a desire to integrate spirituality into their treatment (Rose et al., 2001).

Religious and spiritual beliefs can impact how individuals see significant occurrences in their life and the significance they attribute to such occurrences (Koenig, 2012). These interpretations can result in less stress, enhanced flexibility and functionality, or heightened stress and coping challenges. Hence, it appears that Cognitive Behavioral Therapy (CBT), which emphasizes beliefs, would be a suitable method to tackle deeply ingrained difficulties related to religion and spirituality that are rooted in belief systems. In their 2007 study, Smith, Bartz, and Scott performed a meta-analysis of 31 outcome studies on spiritual treatments. They found empirical evidence suggesting that spiritual-oriented interventions may have positive effects on patients suffering from psychological issues such as depression, anxiety, stress, and eating disorders. Examining CBT interventions in detail, Hodge (2006) analyzed

14 studies that investigated the effectiveness of R/S CBT in addressing various psychological issues such as depression, anxiety disorders, and schizophrenia. The findings indicated that R/S CBT is a proven and effective approach for treating depression in individuals who identify as Christians. Additionally, it is likely to be an effective intervention for depression among individuals who are chronically ill.

The relationship between Psychological Distress and Polycystic Ovary Syndrome

Polycystic ovarian syndrome (PCOS) is a condition that is both clinically and publicly significant due to its high prevalence, affecting around 20% of women in their reproductive years. Polycystic ovary syndrome (PCOS) has notable and varied clinical consequences, encompassing reproductive issues (such as infertility, excessive male hormone levels, and excessive hair growth), metabolic problems (such as insulin resistance, impaired glucose tolerance, type 2 diabetes mellitus, and increased risk of cardiovascular issues), as well as psychological symptoms (such as heightened anxiety, depression, and decreased quality of life). Polycystic ovarian syndrome is a diverse illness that encompasses a wide range of clinical and research areas, including several disciplines (Teede, Deeks, & Moran, 2011).

The most troubling symptoms in adults with PCOS have been shown to be hirsutism, monthly irregularity, and infertility, whereas weight concerns have been recognised as the most troubling symptom in adolescents and young women with the condition (Kitzinger & Willmott, 2002). There is a suggestion that women with PCOS may have a higher likelihood of developing eating problems due to the tendency for obesity in PCOS. PCOS often presents with obesity, particularly central obesity, which exacerbates the characteristics of the condition (Gambineri, Pelusi, Vicennati, Pagotto, & Pasquali, 2002). Depression and anxiety are commonly observed in individuals with PCOS. Depressive symptoms and mood problems are prevalent among the majority of obese people (Dixen & Obrien, 2003). Nevertheless, there is conflicting data about the impact of obesity on the likelihood of developing

depression.

Body image pertains to an individual's cognitive representation of their physical body, encompassing their attitude towards their physical attractiveness, overall well-being, normal bodily functioning, and sexual identity. The concept of body image for women includes aspects of femininity and attractiveness, which can serve as a representation of social status (Bazarganipour, Ziaei, Montazeri, Foroozanfard, Kazemnejad & Faghihzadeh, 2013). Consequently, PCOS patients' unfavourable perception of their body image results in feelings of dissatisfaction, reduced self-awareness of their appearance, diminished femininity, decreased sexual attractiveness, and difficulty conforming to societal norms (Deeks, Gibson, Paul, & Teede, 2011). Previous research has shown that symptoms such as excessive hair growth, obesity, acne, and infertility can cause significant physical and emotional distress for many individuals with Polycystic Ovary Syndrome (PCOS). These symptoms are particularly challenging since they are considered culturally unfeminine and undesirable (Panidis, Macut, Tziomalos, Papadakis, & Mikhailidis, 2009). The loss of femininity in females with PCOS may lead to feelings of stigma and mood disorders, such as sadness, a diminished sense of well-being, and overall unhappiness with life (Zegher & Lopez, 2009). Furthermore, body dissatisfaction is one of the contributing factors to the development of eating disorders. This is because self-esteem, which plays a crucial role in a female's social functioning and interpersonal connections, is solely dependent on their perception of their physical appearance. The weight of girls with PCOS is another influential effect on their body image. This phenomenon may be attributed to cultural inclinations that see the android fat distribution pattern as aesthetically unappealing (Amato, Verghi, Galluzzo & Giordano, 2011).

Obesity or weight increase can result in diminished self-esteem, as well as negative body image and dissatisfaction with one's physical appearance. This can eventually diminish

their overall well-being while exacerbating their psychiatric illnesses. Hence, it is crucial to meticulously assess the emotional welfare of patients, specifically in relation to diminished self-worth, negative perception of one's physical appearance and weight issues, irregular menstrual cycles, and excessive hair growth (Markopoulos, Rizos, & Valsamakis, 2011).

Individuals diagnosed with Polycystic Ovary Syndrome (PCOS) have many clinical alterations that might impact their sexual functionality. There is a paucity of research on the sexual functioning of patients with PCOS. Various factors that have been discovered to have a detrimental effect on quality of life, sexual dissatisfaction, and self-esteem include alterations in physical appearance, particularly obesity and excessive body hair. Additionally, infertility is an additional source of stress for patients with PCOS, which can have adverse effects on their personal relationships, including their marriage and sexual functioning. Depression, anxiety, low self-esteem, and negative self-image are additional factors that can be associated with sexual dysfunction. Therefore, there is no conclusive evidence of a substantial correlation between testosterone levels and sexual functioning. Sexual functioning is mostly influenced by psychological variables and the dynamics of the connection between partners. Furthermore, a research conducted on married Iranian women diagnosed with polycystic ovarian syndrome revealed that the prevailing kind of sexual dysfunction was associated with hypoactive desire disorder and arousal disorder (Himelein & Thatcher, 2006).Numerous behavioural scientists have analysed the signs of depression. Depressive disorders observed in PCOS patients encompass major depressive disorder, dysthymic disorder, and depressive disorder not otherwise specified, as defined by the diagnostic and statistical manual (DSM-V). Previous research has demonstrated that depression is associated with elevated cortisol levels and reduced serotonin levels in the central nervous system. Multiple studies have revealed that the prevalence of depression among people with PCOS ranges from 28% to 64%. The disparity in the prevalence of depression across studies may be

attributed to the utilisation of diverse methodologies and instruments for screening and diagnosing, as well as the examination of the impact of culture on the epidemiology of depression and the recent utilisation of medication. The patients frequently reported experiencing fatigue and disruptions in their sleep patterns. Multiple hypotheses exist regarding the aetiology of depression in patients diagnosed with PCOS. An important factor contributing to depression in patients with PCOS is elevated body mass index, which is accompanied by a negative body image perception (Gambineri & Pelusi, 2019).

Roughly two-thirds of females diagnosed with Polycystic Ovary Syndrome (PCOS) have a body weight that exceeds the healthy range or is classified as obese. One of the biggest reasons of depression in females in the general population is obesity. Females endure tension due to obesity. One of the psychiatric conditions that can substantially modify mood, behaviour, thoughts, and energy level is bipolar disorder. Bipolar disorder is distinguished by the cyclic manifestation of manic and depressive episodes. Bipolar disorder encompasses three distinct types: bipolar disorder I, characterised by episodes of mania and significant depression; bipolar disorder II, characterised by episodes of hypomania and major depression; and unspecified bipolar disorder, which does not satisfy the criteria for either type I or II. The prevalence of bipolar disorder is 1%. The research has not yet established a definitive link between bipolar illness and PCOS, and there is limited data on this matter. There is also a divergence of perspectives and lack of consistency about this relationship. Valproic acid (VPA), a medication commonly used for bipolar illness, has a significant impact on the development of polycystic ovary syndrome (PCOS), according to many researchers. Additional research indicates a close correlation between these two illnesses. Both PCOS and bipolar illness commonly exhibit alterations in HPO levels and metabolic abnormalities (Bidzinska, 2012).

Bipolar individuals have both cognitive and physiological challenges in contrast to

ordinary people. Previous research has shown the presence of many disruptions associated with PCOS, including irregular menstrual cycles, excessive levels of androgens, and morphological or hormonal indications in females with bipolar disorder. Results of a research showed that compared to women receiving no therapy, bipolar women receiving valproate had greater levels of hyperandrogenism, metabolic syndrome, and irregular menstruation. The impact on the hypothalamic-pituitary-gonadal (HPG) axis and reproductive system is mostly caused by the drugs used to treat bipolar illness. There is insufficient evidence to establish a causal relationship between valproate medication and the independent induction of polycystic ovary syndrome (PCOS). Therefore, according to the results of many biochemical investigations, long-term valproate treatment can result in heightened production of androgens in the ovaries. Valproate has the potential to generate symptoms of polycystic ovary syndrome (PCOS), as suggested by Krepula in 2016.

Anxiety is a frequent problem for females with PCOS, affecting from 34% to 57% of them. Anxiety often arises from enduring concerns about sexual decline, infertility, and the inability to have offspring. Additional symptoms of PCOS, such as hirsutism, acne, obesity, and monthly abnormalities, might also induce anxiety in individuals with PCOS. In addition, women with PCOS often suffer elevated levels of anxiety due to the presence of masculine physical characteristics resulting from increased testosterone levels, as well as their knowledge of potential long-term health conditions. Anxiety is the primary cause of depressive illnesses. Previous research indicates that anxiety problems are more common than depression among people with PCOS. Anxiety, being a robust indicator of functional impairment, significantly impacts the role of function and quality of life in patients with PCOS. According to the research, individuals diagnosed with PCOS exhibit symptoms of social phobia, specific phobia, and panic disorder. Adverse responses from individuals towards fat and hirsutism might potentially provoke social phobia. In general, there is a

scarcity of evidence investigating the correlation between anxiety and PCOS. As a result, it is possible that the elevated prevalence of anxiety among women diagnosed with PCOS is not attributable to single issues but rather to cumulative adverse impacts (Deeks & Gibson, 2010).

There has been a recorded increase in the prevalence of eating disorders and suicidal behaviour among females diagnosed with PCOS. Women afflicted with eating disorders frequently exhibit covert behaviour regarding their food issues and weight management. Individuals suffering with bulimia nervosa typically experience feelings of shame around their eating behaviours. This has resulted in ladies with eating problems being hesitant to reveal and discuss their eating habits. Prior research has consistently indicated a correlation between Polycystic Ovary Syndrome (PCOS) and eating problems. Nevertheless, the cause of this association has not been adequately explained. Multiple hypotheses have been put forward to elucidate the correlation between polycystic ovary syndrome (PCOS) and bulimia nervosa. Emotional discomfort is a potential cause of unpleasant symptoms associated with PCOS, including hirsutism, acne, monthly irregularity, and obesity. These symptoms may contribute to the development of eating disorders. According to a preliminary study, individuals who are overweight or obese may develop harmful eating patterns, including binge eating, purging, vomiting, dieting, and resorting to diuretics or laxatives as a means of weight loss. Hence, adolescents with PCOS may experience dissatisfaction with their self-appearance, leading them to see their weight loss efforts as less effective compared to their counterparts without PCOS. In addition, bulimia nervosa can lead to the development of polycystic ovarian alterations because to the hormonal milieu it creates. An alternative mechanism that may occur in females with bulimia is the modification of insulin secretion and the development of insulin resistance. However, there is a lack of consensus in the literature addressing this particular process. Therefore, it is crucial to do a clinical assessment

of females with PCOS to identify any deviant eating patterns before recommending a diet plan (Bassett, 2016).

The most recent definition of infertility is "a medical condition characterised by the inability to achieve a clinical pregnancy after 12 months of consistent, unprotected sexual intercourse, or due to a person's reduced ability to reproduce either alone or with their partner" (Hochschild et al., 2018). Globally, infertility is a common problem among women between the ages of 15 and 49. According to previous research, the prevalence of infertility among reproductive-age women is 15.5% in the United States (Thoma et al., 2013), 24% in France (Slama et al., 2012), and 25% in China (Zhou et al., 2018). Infertility can result in a range of medical, psychological, and societal effects, including sadness, anxiety, social stigma, and isolation. These repercussions can have a substantial influence on the overall quality of life for those with fertility issues (Lakatos, Szigeti, Ujma, & Sexity, 2017).

The relationship between Social distress and Polycystic Ovary Syndrome

Research indicates that women with PCOS experience significantly elevated levels of anxiety, psychological discomfort (including depression), and social phobias (Jedal et al., 2010). Moreover, several studies indicate that a subset of individuals with PCOS may exhibit significant psychopathology and compromised emotional well-being (Manson & Holte, 2008). PCOS patients frequently have anxiety issues, which can lead to significant cognitive impairment. These women are more susceptible to experiencing psychiatric disorders, which can significantly diminish their overall well-being (Bhattacharya, 2010).

Patients with chronic illness and their families not only have to deal with the anxiety and stress caused by their diagnosis, but also with the physical demands and potential life-threatening nature of the treatments. Furthermore, they have to manage the long-term health limitations, fatigue, and pain that can persist even after the disease is no longer detectable. These impacts contribute to emotional anguish and psychological disorders among patients,

and collectively can result in significant societal issues, such as unemployment and decreased earnings. The impact of these consequences is intensified when individuals experience psychological and social pressures that existed before the development of cancer, such as financial hardship, absence of health insurance, and limited or nonexistent social networks. Physical, psychological, and social stresses are frequently interconnected, with each one arising from and influencing the others (Institute of Medicine USA, 2008).

Durkheim (1951) offered a sociological viewpoint suggesting that being part of social groups may foster a sense of belonging and purpose in an individual's life. Conversely, the absence of social interaction can result in feelings of hopelessness and despair. Women with Polycystic Ovary Syndrome (PCOS) also display a range of symptoms, including absence of menstruation, infrequent menstruation, excessive hair growth, obesity, difficulty conceiving, lack of ovulation, and acne. These symptoms can lead to depression, difficulties in marriage and social interactions, and impaired sexual function. The incidence of depression among women with PCOS is substantial, ranging from 28% to 64%, whereas the prevalence of anxiety ranges from 34% to 57%. Women diagnosed with Polycystic Ovary Syndrome (PCOS) have been found to have a higher susceptibility to developing social phobia and engaging in suicide attempts. The factors contributing to the increased occurrence of anxiety and depression in women with PCOS are known to be intricate. The physical symptoms observed in women with PCOS are believed to be the primary source of psychological anguish. Conversely, there is a correlation between acne, hirsutism, and BMI and heightened symptoms of psychological discomfort. This demonstrates that several variables together contribute to the elevated prevalence of both anxiety and depression in women with PCOS.Social Anxiety Disorder, also known as Social Phobia, is a persistent fear that arises in individuals during one or more social situations where embarrassment may occur. This fear or anxiety is disproportionate to the actual threat posed by the social situation, as determined

by the cultural norms of the person (Holmes et al., 2020).Several people diagnosed with PCOS commonly have comorbid depression and anxiety, which can also be accompanied by other mood disorders such as obsessive-compulsive disorder, somatization, social phobia, and panic disorder (Brutocao et al., 2018). Women afflicted with hirsutism frequently display psychotic symptoms and have heightened levels of worry and tension. Individuals displaying signs of hyperandrogenemia are at a higher risk of developing social anxiety and encountering significant challenges related to their sense of self (Podfigurna-Stopa et al., 2015). An interpersonal connection refers to the social and emotional contact that occurs between two or more persons within a certain setting. Hirsutism and menstruation issues provide significant hurdles to feminine identity, with a profound impact on mood, relationships, and psychological well-being (Facchin et al., 2021).Social support can have a multifaceted impact on health, influencing psychological, behavioral, and biological mechanisms, both directly and indirectly (Schwarzer & Leppin, 1991). The precise processes or primary pathways by which social support impacts health are uncertain (Uchino, 2006). Social support can enhance health by enabling individuals to engage in healthy activities, including physical activity, consuming a well-balanced diet, and following to medical treatment plans (Dimatteo, 2004).

According to studies of the social support literature, it has been proposed that the perception of support helps to mitigate the psychological effects of adverse events and ongoing stressors (Taylor, 2007). PCOS due to its long-lasting character, might result in unfavorable or maladaptive evaluations of the experience of being unwell. Chronic stresses often lead to feelings of helplessness and a decrease in self-esteem, as individuals regard themselves as unable to effectively handle the demands of their position. Regarding sickness, these maladaptive reactions have been associated with disturbances in the functioning of the neuroendocrine and immunological systems, as well as unfavorable health-related behaviors

(Ali et al., 2006). The belief that others are capable and willing to give the required resources might weaken or hinder the emotional reaction to a challenging situation, such as a long-term sickness. Hence, the evaluation of sickness experience based on emotions or interpretations can serve as a means by which social support impacts an individual's health and overall well-being (Romm et al., 2021).

Leventhal's Self-Regulation Theory (1984) emphasizes that illness representations, which include cognitive and emotional evaluations, are influenced by personal and social factors. Consequently, social networks might potentially alleviate the emotional discomfort associated with the PCOS (Baumann, 2003). Prior studies have established connections between social support and different health consequences, including death from cardiovascular disease (Brummett et al., 2010), mortality from infectious diseases (Borus, 2001), and immune system functioning (Glaser et al., 1984). Individuals with PCOS who get greater levels of social support experience lower rates of depression and have improved chronic illness self-management (Gallant, 2003). Research has demonstrated that social support has an impact on pain processing in individuals with fibromyalgia, affecting both their subjective experience and the functioning of their central nervous system (Montoya et al., 2004). Furthermore, research has demonstrated a correlation between social supports and reduced functional impairment, decreased symptom aggravation following a stressful event, and even enhanced health outcomes among persons diagnosed with chronic fatigue syndrome (Muhammad & Maurya, 2022). Poly cystic ovary syndrome is also accosiated with infertility. Infertility can give rise to a multitude of personal and societal issues, alongside the medical complications. It may be seen as a period of significant growth and change (Datta et al., 2016). Infertility can result in significant social and psychological repercussions, including rejection, divorce, social shame, loneliness, and psychological suffering (Slade et al., 2007).

Women are most often held responsible for infertility, despite the fact that it affects

both sexes equally (Moghadam et al., 2012). As a result, infertile women experience feelings of shame and their self-esteem is undermined. Therefore, women who are unable to conceive have more significant psychological distress compared to males facing infertility. Additionally, they frequently face social stigma due to their infertility and lack of children (Fu et al., 2015). Infertility is often perceived as a social shame among many women. Infertility stigma appears to be more prevalent in developing nations, although it is also present in both developed and developing countries (Karaca & Unsal, 2015).

The stigma surrounding infertility is linked to the emotions of shame and secrecy (Fledderjohann, 2012). Stigma refers to a detrimental sense of being distinct from others in society and deviating from established social standards (Kang, 2015). Experiencing infertility as a stigma can lead to a lack of social support and result in despair, worry, stress, guilt, and interpersonal issues for the infertile individual (Azghady et al., 2019). Additionally, it can lead to psychological disruption, diminished self-worth and confidence, and an inclination towards self-stigmatization. The stigma surrounding infertility and the resulting societal expectations have a significant impact on several aspects of women's life and overall well-being (Sternke & Abrahamson, 2014).

Children in underdeveloped nations are highly valued due to their significant social and cultural values (Fu et al., 2015). A multitude of religions and belief systems place significant importance on the concepts of fertility and reproduction. Within the Islamic faith, motherhood is held in great esteem and it is commonly accepted among Muslims that "Paradise is found beneath the feet of mothers" (Karaca & Unsal, 2015). In Christianity, reproduction is strongly encouraged. However, several Christians view infertility as an additional divine favor (Greil et al., 2010). Judaism promotes procreation among its adherents, and several Jewish academics permit the use of artificial methods for this objective (Fledderjohann, 2012).

Female infertility can cause significant social and psychological distress. The infertile couple may experience societal pressures in addition to the obvious consequences of infertility. Within many cultures, the inability to carry children is only attributed to women, resulting in a bias connected to gender when it comes to a couple's infertility (Greil, 2017). Previous studies have indicated that infertility has a more profound impact on women compared to males (Kassanoff, 2017). Infertile women may encounter spousal abuse, financial distress, social alienation, decline in social standing, and marginalized marital relationships. Infertility, a private affliction, has the potential to transform into a public and unfavorable social stigma, leading to intricate and severe repercussions (Slade et al., 2007).

The potential societal consequences of procedures such as gamete donation must be disregarded. A study has demonstrated that Iranian women who are persuaded or forced to accept third-party gamete donation may have adverse outcomes, such as mental and physical mistreatment, desertion, and marital dissolution (Donkor & Sandall, 2007). Abbasi-Shavazi et al. found that the act of donating gametes and embryos can lead to the development of social stigma within the society (Suchta et al., 2016). In Iran, as in many other developing nations, childbirth is regarded as a socially esteemed and essential requirement for married women. In this context, the absence of children and the inability to conceive are widely seen as undesirable attributes for couples. The term "cold stove" pertains to childless households among the Iranian society. These conventions are ingrained in the people's belief system and are bolstered by religious and traditional perspectives. The significance of childlessness is also apparent in the Iranian Family Protection Law. As stated in Article 9 of this law, infertility can serve as a valid legal and religious reason for ending a marriage through divorce (Brien et al., 2014).

Factors such as patriarchal beliefs, limited social and economic support for women, low likelihood of remarriage for infertile women, and societal disapproval of being single can

exacerbate the psychological distress experienced by infertile women in Iranian culture (Goldner, 2015). Personal beliefs can impact one's quality of life by providing structure to experiences, assigning significance to them, offering comfort, promoting well-being, ensuring security, and fostering a sense of belonging (Chai et al., 2012).Although numerous studies have linked spirituality to improved mental and physical well-being, there is also evidence suggesting that certain negative aspects of spirituality, such as low spiritual well-being or religious struggle, may be associated with poorer health and psychological outcomes (Zawodniak & Dębska, 2018). The presence of spiritual distress is an important aspect of spirituality that should be addressed in order to enhance health outcomes. This is because there is a link between spiritual distress and adverse physical and mental health effects in cases of acute care or advanced disease (Pargament & Exline, 2022; Stauner, Exline, & Pargament, 2016).

The Relationship between Spiritual Distress and Polycystic Ovary Syndrome

Concerns regarding chronic illnesses such as PCOS are frequently accompanied by uncertainty (American Psychological Association, 2012). Therefore, the disease is characterised not solely by its physical manifestations, but also by its mental and spiritual impacts. Chronic illness is "a lifelong process of adapting to significant physical, psychological, social, and environmental changes" due to the illness, according to Bishop (2005). Living with a chronic illness consequently diminishes an individual's quality of life. Individuals who have Polycystic Ovary Syndrome (PCOS) frequently encounter challenges that involve significant physical and psychological stressors due to the nature of their condition. Self-management behaviour changes include adhering to a prescribed medication and diet, monitoring blood sugar levels, engaging in physical activity, caring for one's feet, and managing daily responsibilities (Funnell et al., 2012; Chronic Illness Alliance, 2005). Certain patients diagnosed with PCOS, including those with AIDS and hepatitis, may even

encounter "stigma and discrimination" (Charmaz, 2007). In conclusion, chronic symptom burdens may induce "emotions of guilt, loss, sadness, anxiety, diminished self-esteem, loss of role-function, difficulties in communicating with family and friends, existential questions, religious struggles ('Why me?')," and so forth (Büssing, 2010).

Recent literature has identified self-transcendence, connectedness, and the pursuit of meaning as concepts associated with spirituality and chronic illness, as viewed through the lens of western philosophy regarding spirituality. Extension inwardly through introspective examination of one's belief systems; extension outwardly through connection and concern for others; and extension temporally through analysis of past perceptions and incorporation into future beliefs are the most accurate definitions of self-transcendence (Haase et al., 1992). Self-transcendence can be prompted by a significant life event, such as the prognosis of a chronic illness (Daaleman et al., 2001). Individuals afflicted with chronic illnesses may be able to transcend themselves in order to connect with a higher power and utilise this fortitude to mobilise their own resources for illness management through the practice of self-transcendence. In the literature, the notion of connectedness was frequently associated with spirituality. Connectedness, which pertains to an individual's perception of a bond with a higher power, has the potential to assist those afflicted with illness in developing self-awareness, striving for personal transformation, and contemplating the significance and direction of their lives (Coyle, 2002). Establishing a connection with a higher power enables individuals to relinquish control over uncontrollable circumstances while simultaneously exerting agency over controllable matters (Carson & Green, 1992). Connectedness has the potential to inspire and motivate individuals with chronic conditions by serving as a source of fortitude and a catalyst for action (Coyle, 2002). Desire to maintain a connection with a higher power through prayer and meditation may result from a sense of connection with something greater than oneself. Additionally, it may inspire individuals to care for and donate

to others as an expression of their spiritual connection (Burkhart, 1994). A connection to a higher power can provide the fortitude and optimism necessary to overcome adversity, including the presence of a chronic illness. In the context of illness, the term "finding meaning" can be defined as the process of discovering a sense of purpose or meaning in one's existence (Tanyi, 2002). It has been discovered that discovering meaning in one's illness or crisis is an effective coping mechanism (Baldacchino & Draper, 2001). Individuals with chronic illnesses such as PCOS are better able to connect spiritually with themselves, a higher power, and others when they discover meaning. By recognizing the significance of life, individuals with chronic health conditions can gain a measure of agency over their circumstances and develop the capacity to relinquish certain burdensome aspects of the illness in favor of seeking solace and support from a higher power (Carson & Green, 1992). People with chronic illnesses may be able to discover a sense of purpose in life through the process of discovering meaning, which can be a significant component of illness integration (Daaleman et al., 2001). Meaning-finding, transcendence, and connectedness are all intricately linked to the subject of spirituality and spiritual coping mechanisms. Spirituality is characterised by a connection with forces greater than oneself and faith in a higher power, according to Fryback and Reinert (1999). Transcendence was identified as a subconcept of faith and connectedness. Spiritual well-being enables individuals to establish meaningful connections with both others and a higher power; by doing so, they are able to discover purpose in their illness and in life as a whole, thereby assisting them in surpassing their illness (Carson & Green, 1992).

Spiritual distress could be caused by any aspect of spirituality. Numerous authors within this genre regard spirituality as an all-encompassing notion that transcendentally unites humanity and constitutes the very essence of an individual. This is predicated on the human pursuit of meaning, purpose, and self-actualization, as well as connections with others

and a higher power (Belcher, 2006; MacInnis, 2007; Okon, 2005; Rousseau, 2003; Sumner, 1998). Spirituality is defined by Millspaugh (2005b) as a state of "being" that is characterized by one's connections to oneself, others, the environment, evil, and sanctity. Spirituality, according to Sumner, encompasses both the experience of a purposeful existence on earth and the knowledge of an eternal afterlife. Bartel (2004) elucidates his perspective on spirituality within the framework of religion and non-religion in his theoretical essay. "Love (community, connection); faith (worldview); hope (vision); virtue (ethics); and beauty (renewal)" are the five domains in which he contends spiritual requirements are present. (p.188-9). Spiritual distress is a universal human experience; all individuals are susceptible to it; and it is synonymous with suffering, according to a number of theistic authors (Mako et al., 2006). Spiritual unrest and suffering, in Bartel's view, result from undefined requirements. He also believes that a life circumstance that is incongruent with one's personal values can cause distress. According to Millspaugh, suffering can arise from the perception of loss or the incapability to discern the significance of a given circumstance. Certain individuals may come to the realization that they have been leading a fabricated external life, which is an inauthentic existence. Millspaugh (2005b) contends that theology underpins patients' attempts to comprehend their circumstances. According to him (2005a, 2005b), an internal locus of control is necessary for an individual to maintain optimism and attain favorable results despite adversity by drawing on inner resources. The significance of advanced disease and spiritual distress is widely acknowledged within the theistic approach. According to MacInnis (2007), a Canadian chaplain, health care is reffered it as "the juncture of suffering and individual spiritual search". This is especially true for those with terminal illnesses, where there is a genuine necessity to question one's identity, beliefs, and life. According to Rousseau (2003), spirituality is considered an essential component of the dying process, and he argues that as one approaches death, their attention becomes more preoccupied with a

transcendent aspect of existence. When confronted with a life-threatening illness, one's illusions regarding personal agency are severely challenged. It is customary for theistic individuals to gain access to Divine power via supplication in order to affect life circumstances and overall welfare. While religious faith can provide individuals with fortitude and strength, as well as improve their capacity to love and forgive, Rousseau acknowledges that it contributes to the dread of eternal damnation if past actions violate religious principles. Spiritual distress is examined by Sumner (1998) in relation to anxiety regarding the meaning of life, agony, suffering, and death, as well as conflicting religious convictions and resentment toward God. In his literature review on spirituality, Okon (2005) discusses how religious beliefs can serve as a coping mechanism to confront the existential crises that arise from life-threatening illnesses. This serves to unite the existential, spiritual, and religious spheres. Although Mako et al. (2006) conclude that religion has no consequence on the frequency of spiritual distress, the authors believe that religious beliefs influence the experience. Millspaugh (2005) concurs with MacInnis (2007) that individuals seek meaning in their suffering so as to surpass it. They can maintain a sense of self and purpose while also focusing on the future in this manner. According to Millspaugh (2005), the degree of spiritual distress experienced is contingent upon an individual's perspective on suffering and the level of development of their faith. Thus, spiritual development and coping are influenced to some degree by inner resources, life experience, and the capacity to transcend imminent adversities. Such are the epistemological assumptions. Pesut (2005) argues, from a theistic standpoint, that God allows man to possess a certain level of intimate, intuitive knowledge regarding Him. Criticizing such knowledge is challenging owing to its sacred essence. While acknowledging that the complete understanding of the spiritual realm remains elusive, a number of authors argue that progress toward this objective could be facilitated by establishing a unified definition of spirituality (Mako et al., 2006).

As Millspaugh (2005) notes, it is impossible to completely comprehend the suffering of another. According to him, the most effective method to comprehend spiritual distress is to reflect on one's own experience with it in order to identify potential effective assistance strategies. Certain scholars within this field propose that our capacity as caregivers to observe and consequently alleviate suffering is contingent upon our intuitiveness and sensitivity to spiritual distress (MacInnis, 2007). Every author who adopts a theistic standpoint takes into account the interconnectedness that exists among the spiritual, physical, and psychosocial dimensions of an individual. Although spiritual distress may be imperceptible to the naked eye, the physical manifestations of loss and deterioration may provide insight into its nature. There may be a correlation between a compromised sense of self and the loss of autonomy and self-esteem that accompanies advanced illness (Millspaugh, 2005). As individuals afflicted with PCOS experience increased isolation from routine activities and interpersonal connections, they develop a heightened consciousness of their lack of control over the situation. The progression of spiritual distress to the point of physical nonexistence. Spiritual suffering is multifaceted and can exert a substantial influence on individuals who are terminally ill (Mako et al., 2006; Okon, 2005). Existential suffering experienced during periods of illness and death, according to Mako et al. (2006), can manifest in one of three dimensions: intrapsychic, interpersonal, or divine. Pain that is "deep within your being and not physical" is the distinction they make. Wright (1997) expands the concept of suffering during illness to encompass not only the patient but also family members, who experience the anguish and apprehension of the unknown. Spiritual distress can present itself in the form of physical or psychological symptoms such as grief, anxiety, sleep disturbances, or remorse, according to a number of other authors (Bartel, 2004). MacInnis posits, on the basis of her clinical expertise, that spiritual distress could potentially materialize in one of four interconnected spheres: requirements pertaining to physical well-being, symptom

management, religious and spiritual concerns, and issues concerning inner resources. Pysical discomfort does not invariably result in emotional distress. On the contrary, the intensity of the pain may be mitigated by the significance that the patient or family associates it with, a concept that is corroborated by Wright (1997). According to Mako et al. (2006), MacInnis (2007), and Okon (2005), existential or emotional suffering brought about by isolation may be more severe than physical suffering. Subsequently, this type of pain can lead to unfavorable treatment outcomes, extended recovery periods, elevated mortality rates, and ultimately, heightened distress (Mako et al., 2006). Spiritual distress may influence treatment resistance in the same way that religious convictions influence health care decision-making. In instances of profound spiritual despair, mortality represents the sole viable recourse.

Outside of Islam, spiritual distress is referred to as an unseen suffering of the soul or a disturbance in an individual's system of beliefs. Regarding spiritual distress among the Muslim population, little is known.

The array of symptoms manifested commences with the diagnosis and persists throughout the progression of the illness and its treatment; furthermore, additional distressing emotions may ensue, including but not limited to despair, dread, anger, uncertainty, and disbelief (René et al., 2017).

The majority of Pakistanis in Pakistan embrace Islam. In Islam, spirituality is presented as the foundation of human development (Isgandarova, 2014) and the most essential element of the spiritual requirements of Muslim patients in comprehending the essence of human being and their connection with God (Cobb et al., 2012). Individuals suffering from chronic ailments, particularly those with disabilities, require assistance from others to carry out their everyday tasks. This requirement is well fulfilled in Muslim countries due to the emphasis placed by Islam on strong and deep familial bonds, as well as the maintenance of kinship links (Soori, 2019). The authors argue that this type of familial bond

is viewed as a strategy to promote harmony and longevity, with family members providing support to one another throughout challenging situations (Barikdar et al., 2016). Patients with chronic illnesses and impairments encounter highly stressful and even life-threatening situations. These encounters possess a spiritual essence (Jaarsma, Beattie, Ryder, 2009).

According to Islamic beliefs, the suffering brought on by chronic or fatal illnesses is seen as a divine test. Some Muslims may also consider the circumstance as a chance to demonstrate inventiveness in self-management and to give life purpose (Lari, Goushegir, Madjd, & Latifi, 2008). In the face of harm and disease, these patients put their lives first and may ask themselves philosophical questions about things like the existence of God, the purpose of life, the implications of their diagnoses for the future, and whether or not they have trustworthy allies (Cobb & Rumbold, 2012).

Grief and sorrow are inherent components of the human experience. They develop as a natural response to life's losses. All suffering, happiness, death, and existence, according to the Muslims, are predetermined by God. God gives us strength, and trials and tribulations are tests of our faith in how we respond to adversity. Our objective is to place our confidence in the mercy of God. This type of belief is highly beneficial and reassuring during the healing process. For example, bereaved family members are encouraged to exercise patience and embrace the will of God. "Be certain that we shall put you to the test with something of hunger and fear, some loss of life, property, and the results of your effort; however, we shall bring good news to those who persevere with patience." Those who say, 'To Allah we belong, and to Him we return when beset by disaster" (Quran 2:155). Individuals who embrace God's decree with patience will receive a reward from Him. Harat Muhammad SWT said that "At the time of supplication, no one who experiences anxiety or grief does so in vain; rather, Allah will grant that individual happiness in exchange of his sorrow and grief,".

According to Maslow, human wants may be divided into core needs (such as food, sleep, shelter, and sexuality) and secondary needs (such as security, companionship, belonging, acceptance, and self-realization) (Bernard et al., 2005). Unlike conventional psychosocial needs, which typically involve issues such as loss of social role function, lack of support from family or friends, difficulties in managing disruptions in work or daily life, insufficient material and logistical resources, depression, and other negative emotions, as well as disease-related distress, spiritual needs pertain to the desires and expectations that humans have to discover meaning, purpose, and value in their lives. These requirements may pertain to religion, but even individuals who lack religious faith or are not affiliated with an organized religion possess belief systems that provide significance and direction to their lives" (Institute of Medicine (US) Committee on Care at the End of Life, 2015). Existential needs, as defined by Burkhardt (2009), encompass the need for peace of mind, the drive to overcome despair and guilt, and the quest to discover meaning and purpose in life. However, spirituality is a complex concept that is intertwined with religion, existentialism, and humanism. Underwood and Teresi defined spirituality as a personal and inclusive quest for significance and direction in life, involving the pursuit of "transcendental truth." This quest may involve a feeling of interconnectedness with people, nature, and/or the divine (Gouveia Melo & Oliver, 2012).

Exploring spiritual perspectives on these questions can be a valuable tool for providing care and treatment. The healthcare team has a significant role in improving life expectancy by collaborating with priests and chaplains to facilitate care, directly addressing the uncertainties associated with chronic illness, and connecting patients with their religious communities (Taylor et al., 2016). Several research indicated that religious activities such as preaching, remembrance of the actions of a deity or gods, and meditation are connected with spiritual welfare. In their study, Yamada et al examined the viewpoints of adults who were

receiving public mental health services in California (USA) regarding the relationship between spirituality and mental health. The findings revealed that over 80% of the 2050 mental health participants agreed or strongly agreed that engaging in religious activities or practices, such as prayer (73%), meditation (47%), attending religious services (40%), and spending time in nature (41%), had a positive impact on their mental well-being. The researchers also noted that religious practices could enhance patients' spirituality, leading to a greater sense of peace, purpose, increased energy levels, relaxation, and self-connection. Spirituality and religion have significant impacts on healing, disease prevention, stress management, and rehabilitation. Studies have shown that individuals with stronger religious practices and higher levels of spirituality experience better mental health, enhanced ability to cope with health issues, and a higher quality of life (Irawati et al., 2023).

In the book "Contemplation: An Islamic Psychospiritual Study," Malik Badri asserts that early Muslim scholars placed significant emphasis on internal cognitions by engaging in contemplation of God and His Creations. They also practiced self-examination and reflection based on the Quran and Hadith. This approach was recognized as a potent catalyst for transforming both the mind and behavior. For Muslim patients, fostering these faith-centered beliefs and behaviors might help them derive meaning and purpose from hardship, viewing it as a manifestation of God's love for them. The Qur'an frequently references trials and hardships, urging believers to endure them and assuring them that God would bestow upon them spiritual instruction. The Qur'an provides guidance on how Islamic therapy should be conducted, emphasizing the importance of wisdom and grace. It advises believers to invite others to the path of their Lord through wise and eloquent preaching, and to engage in arguments in the most effective and respectful manner. This verse highlights that Allah is the ultimate judge of those who have deviated from His path and those who have received guidance (Al-Nahl 16:125) (Aldahesh, 2014). Research has shown that Islamic-based

psychotherapy is beneficial for Muslim individuals experiencing anxiety, sadness, and grief, leading to a considerably faster response to treatment (Abu Raiya & Pargament, 2010). Patients are advised to recognize pessimistic thoughts and openly address matters pertaining to their cultural background and sickness. Individuals are directed towards the teachings of the Quran and Hadith, as well as encouraged to adopt a lifestyle that aligns with the Islamic teachings revealed to the Prophet Muhammad (pbuh). Azhar et al. urged patients to acknowledge and embrace religious principles derived from Islamic teachings, and to incorporate these principles into their ideas, behaviors, and emotions (Abu Raiya & Pargament, 2010). Depressed patients are often introduced to the concept of repentance and forgiveness as a means to overcome feelings of guilt and regret. However, it is important to approach this topic with caution, as it may activate the patient's underlying beliefs that their illness is a form of punishment from a higher power (McHugh et al., 2017). An accurate comprehension of one's spiritual connection with God enables the individual to depend on God consistently via regular prayers and supplication (Duā), since these practices foster calm and augment a feeling of well-being (Razali et al., 2018). Studies indicate that religiousness and spirituality undergo development throughout one's lifetime, influenced by cognitive, emotional, and psychosocial aspects. Furthermore, they are strongly associated with both quality of life and mental health (Barnett & Johnson, 2011). Religion helps one's capacity to properly handle difficult life events, disease, and handicap through prayer. It is also associated with a lower likelihood of drug and alcohol consumption and contributes to an overall better quality of life (Azhar et al., 2013). A comprehensive analysis on the relationship between religion and suicide risk revealed that being part of a religious group helps to prevent suicide attempts, while it may not always protect against having thoughts of suicide (Lua et al., 2018). Furthermore, it is worth mentioning that those who perceive adversities as punishments or abandoned by God have a greater incidence of despair, anxiety,

and death, notwithstanding the aforementioned beneficial associations (Hefti, 2011).

The majority of quantitative research on the relationship between religion/spirituality and mental health focuses on Christian populations, including over two thirds of the studies. Conversely, there is a significant lack of research on Islamic-based therapy for Muslim patients. As previously said, the findings of these research demonstrate enhancements in several aspects of individuals' mental and emotional states, such as their overall sense of well-being, hopefulness, optimism, sense of meaning and purpose, self-esteem, internal sense of control, reduction in symptoms of depression, suicidal tendencies, anxiety, and substance misuse, which are comparable to those achieved through Christian-based Cognitive Behavioral Therapy (CBT). Nevertheless, studies have indicated that a significant number of programs utilizing religious-based therapy to address depression in Muslim patients have been lacking in rigorous methodology. Walpole et al. The authors, Knettel (2016), highlighted the necessity of conducting rigorous research to ascertain the ways in which current therapies might be tailored to cater to the requirements of Muslim customers. Additionally, they emphasized the importance of assessing the efficacy of these customized treatments.

Additionally, Islam does not stigmatize physical appetites. Instead, people should enjoy and celebrate their natural needs for food, drink, and closeness (within the limits God sets). Adopting a holistic approach that encompasses both the physical and emotional aspects of human existence facilitates the attainment of equilibrium, while also fostering a sense of spiritual gratitude (Post et al., 2020).

The relationship between psycho-socio-spiritual distress and Resilience

Resilience is defined by Connor and Davidson (2003) as a mechanism of stress-coping ability. In line with Bonnano's (2004) definition, resilience can be understood as the capacity to sustain a steady psychological equilibrium. It serves as an analogy to

psychological vulnerability. As per the provided definitions, resilience is distinct from recovery in that it pertains to the capacity to sustain a stable psychological state in the face of shifting circumstances, rather than the ability to "bounce back" from adversity (Seery, 2011). In contrast, Grych, Hamby, and Banyard (2015) define resilience as the improvement of one's psychological health in the aftermath of a negative experience. Fundamentally, resilience is defined as the process by which an individual recovers from adversity and develops constructively following adversity. On the other hand, recovery denotes a mere recoup from adversity. A review of the correlation between resilience and mental health outcomes could furnish valuable insights for mental health practitioners concerning the preservation and enhancement of psychological well-being (Richardson & Waite, 2001). Furthermore, more research and the identification of particular elements that enhance or diminish resilience could contribute to the development of more efficacious therapeutic approaches that foster psychological stability and holistic health. The impact of resilience, or lack thereof, on an individual's reaction to unfavourable life circumstances has been extensively studied. Research has demonstrated that individuals who possess low resilience are at a greater risk of encountering psychological distress in the aftermath of a traumatic life event, in contrast to those who exhibit high resilience. An investigation was carried out by Ong, Bergeman, Bisconti, and Wallace (2006) to explore the correlation between resilience and various stress indices: Life events and daily stressors (e.g., arriving late to work) that cause anxiety (e.g., the loss of a spouse). Elasticity in emotional reactions subsequent to adverse experiences was found to be accounted for by variations in resilience, according to the findings. Elevated levels of resilience were associated with diminished correlations between the affective state of the individuals and the stressful event (Ong et al., 2006). Similar findings were reported by Hardy, Concato, and Gill (2004) in support of a correlation between resilience and adverse life events. A study conducted by Hardy et al. (2004) found that participants who reported

higher levels of resilience were less likely to perceive an event as distressing in comparison to those who reported lower levels of resilience. Additionally, King, King, Fairbank, Keane, and Adams (1998) observed additional evidence of an established correlation between resilience traits and adverse life events in their investigation of post-traumatic stress disorder and the psychological distress associated with it. According to the findings, the relationship between stress and PTSD was mediated by resilience (King et al., 1998).

Infertility is a torment for those with PCOS. Married men and women alike find infertility and its consequences to be profoundly taxing, emotionally draining, and socially captivating experiences (Boivin et al., 2011). Conversely, women are disproportionately impacted by the adverse psychological and social repercussions (Lechner et al., 2017). Infertility affects 948.5 million couples globally, as reported by the World Health Organisation. In Pakistan, the proportion of individuals afflicted is 21.9%, with 18.0% suffering from secondary infertility and 3.9% from primary fertility. Such women frequently develop long-lasting mental and physical health issues as a result of the emotional distress that accompanies infertility. Anxiety, fear, and frustration make up the symptoms of emotional distress. Specific psychological resources, including resilience and perseverance, function as protective factors against the detrimental and unwholesome consequences of emotional disruptions (Dyer et al., 2005). Resilient people are distinguished by their sense of self-worth, confidence in their own abilities to solve problems, diversity of problem-solving skills, and positive interpersonal relationships. Quality of life refers to the degree to which an individual is capable of improving their physical, occupational, social, and psychological endeavours. Fertility quality of life pertains to an individual's subjective assessment of their life circumstances and treatment environment in relation to infertility (Inhorn & Patrizio, 2015). In some cases, childlessness during the first two to three years of a marriage can result in divorce and severe emotional strain for the wife. During treatment, infertile women may

encounter social stigma, anxiety, or depression, all of which contribute to a diminished quality of life in terms of fertility (Herrmann et al., 2011).

Researchers have noted that the protective mechanisms observed in resilience studies at the individual, familial, and community levels resemble the protective aspects of spirituality and religion (Crawford et al., 2006). From a conceptual standpoint, Crawford et al. (2006) propose that spirituality can support resilience in four significant ways: by fostering attachment relationships, by providing access to social support networks, by guiding behavior and moral values, and by presenting opportunities for personal development and growth. Religion may also function as a coping mechanism for confronting adversity, according to an alternative viewpoint (Van Dyke & Elias, 2007). Pargament (1997) posits in The Psychology of Religion and Coping that while certain religious convictions (e.g., perceiving divine punishment) may foster maladaptive coping mechanisms, others (e.g., optimism) contribute to the development of adaptive coping mechanisms, particularly during periods of adversity. Additionally, psychologists hold the belief that religion and spirituality function through various mechanisms to safeguard individuals against detrimental conduct and foster favorable conduct. Religion functions as a significant framework that imparts insight into the meaning of existence amidst exceedingly trying circumstances (Park, 2007). Certain authors have posited that spirituality and religion constitute intrinsic human tendencies. Religion has been and continues to be one of the most potent forces in human existence; everyone has a desire for a relationship with the transcendent and the sacrosanct, according to Wong (1998). Avoidance is a restlessness comparable to that of an orphan that compels people to seek out their parent, their destiny, and their place of residence. People desperately and secretly desire to believe in God, even if they are unaware of it, so that they may have the faith and fortitude to confront the unknown. Certain individuals, especially those who self-identify as atheists or agnostics, would undoubtedly hold a dissenting view

regarding the universal applicability of those assertions. While it is true that some people develop a sense of purpose unrelated to religion, there are also a significant number of people who find meaning in their religious faith in a way that assists them in navigating challenging life circumstances. In a similar vein, the body of literature on resilience identifies spirituality as a prominent attribute of women who are enduring reproductive health challenges. This is because spiritual values contribute to the maintenance of a positive perspective on life and can even assist one in finding purpose in difficult circumstances (Werner, 1996). According to Frankl (1963), the pursuit of life's meaning is crucial for psychological health, and the absence of a purpose in one's existence can lead to psychological maladjustment. The potential exists for the relationship between spirituality and a range of favourable consequences to be mediated by the purpose of life and meaning (Van Dyke & Elias, 2007). In conclusion, the majority of theoretical assumptions regarding the way in which spirituality fosters resilience have centred on its impact on personal development, adaptive coping mechanisms, close relationships, social support, moral behaviour, and the pursuit of life's meaning and purpose.

Individuals who possess resilience often demonstrate qualities including elevated self-esteem, self-assurance in their capacity to efficiently resolve challenges, and proficiency in stress management (Martínezmartí & Ruch, 2016). Prior research has consistently found that resilience has a direct and positive impact on patients' quality of life (Liu & Wang, 2015). A study conducted by Herrmann, Scherg, Verres, and Hagens (2011) revealed a significant and positive correlation between the resilience of women experiencing infertility and their quality of life. Furthermore, previous research has corroborated the role of resilience resources in modulating the impacts on the quality of life of individuals. Resilience possesses the capacity to mitigate the impact of antecedent indicators on quality of life (QoL) by acting as a moderator. Resilience might mediate the association between chronic stress and physical

health in young women (Palm & Ehlert, 2014). Further research has indicated that in individuals with multiple sclerosis, the correlation between emotional disorders and quality of life can be mitigated through the development of resilience (Rainone, 2017). Given the considerable amount of empirical evidence that substantiates the claim that resilience protects quality of life (QoL) and reduces perceived stress, it would appear that resilience might also alleviate the association between QoL and fertility-related stress. Regarding the stress associated with infertility, the quality of life (QoL) may be influenced by the degree to which patients exhibit resilience (Li & Wang, 2016).

Undoubtedly, individuals with polycystic ovary syndrome experience considerable tension due to the threats they pose to their financial stability, overall health, future aspirations, and physical well-being. Furthermore, this condition impedes the fulfilment of familial, social, and occupational responsibilities (Livneh, 2021). Chronically ill individuals face distinct obstacles that may render their typical coping strategies ineffective, necessitating the creation of alternative methodologies (Ridder et al., 2008). While initial emotions and reactions to a new environment are to be anticipated and may aid in acclimating to the circumstances, neglecting to sufficiently attend to the issue can significantly impair the patient's general welfare (Akhbardeh, 2011). There exists a wide array of strategies that can be employed to manage the challenges and distress that are linked to chronic illnesses (Nemeroff, 2016). While deliberate responses to stressors are common among individuals, it is not possible to ensure that these behaviours are in their optimal form (Chiteji, 2010). Resilience functions as an adaptive coping mechanism that enables individuals to effectively adjust to a wide range of stressors. These may consist of physical injuries, threats, traumatic incidents, interpersonal and familial conflicts, financial difficulties, work-related challenges, health complications, and ailments, among others. The objective of resilience is to mitigate the adverse consequences of the stressor (Reis et al., 2014).

The Impact of Marital Status, Socioeconomic Status, Unmarried Status, and Occupation on Polycystic Ovary Syndrome (PCOS)

Polycystic Ovary Syndrome (PCOS) is a complex endocrine disorder affecting approximately 5-10% of women of reproductive age globally (Azziz et al., 2022). PCOS is characterized by a combination of symptoms including irregular menstrual cycles, hyperandrogenism, and polycystic ovaries. These symptoms can significantly impact various aspects of a woman's life, including her marital status, socioeconomic status, and occupation. Understanding these relationships is crucial for developing comprehensive management strategies and improving patient outcomes.

Marital Status and PCOS. Marital status can play a significant role in the experience and management of PCOS. Women with PCOS often face challenges related to fertility, which can be a substantial source of stress. Infertility issues are a common concern among women with PCOS, affecting approximately 70% of those with the condition (Diamanti-Kandarakis & Dunaif, 2023). For married women, the presence of a supportive partner can be a source of emotional stability, which may mitigate some of the stress associated with infertility and other PCOS-related symptoms. Studies have shown that social support, including from a spouse, can buffer against the psychological impact of chronic conditions like PCOS (Hart & Hickey, 2020).

Conversely, marital dissatisfaction and conflicts can exacerbate stress and negatively impact the overall management of PCOS. Research indicates that marital discord can lead to increased psychological stress, which may, in turn, worsen PCOS symptoms (Azziz et al., 2022). Additionally, married women may face societal expectations related to family planning, which can further stress their emotional well-being if they experience difficulties conceiving.

Socioeconomic Status and PCOS. Socioeconomic status (SES) is a critical factor influencing both the management and outcomes of PCOS. Women from higher socioeconomic backgrounds generally have better access to healthcare resources, including specialized treatments and diagnostic services. This access can lead to earlier diagnosis and more effective management of PCOS, which is essential for mitigating long-term health complications such as type 2 diabetes and cardiovascular disease (Diamanti-Kandarakis & Dunaif, 2023).

Higher SES is also associated with better educational levels and health literacy, which can contribute to more informed health choices and adherence to treatment plans. For instance, women with higher SES may be more likely to afford regular medical consultations, access advanced treatments, and engage in health-promoting behaviors (Hart & Hickey, 2020). Conversely, lower SES often correlates with limited access to healthcare services, resulting in delays in diagnosis and treatment. This disparity can lead to more severe manifestations of PCOS and associated comorbidities, including metabolic syndrome and psychological disorders (Dumesic & Lobo, 2023).

Moreover, women with lower SES may experience additional stressors related to financial instability and limited access to healthy lifestyle options, such as nutritious food and recreational activities. These factors can exacerbate the symptoms of PCOS and hinder effective management (Diamanti-Kandarakis & Dunaif, 2023).

Unmarried Status and PCOS. Unmarried women with PCOS may encounter unique challenges that can impact their overall health and well-being. Societal pressure related to marriage and fertility can be particularly stressful for unmarried women who experience infertility due to PCOS. This pressure can intensify the emotional burden of managing the

condition, as societal norms often emphasize the importance of marriage and parenthood (Azziz et al., 2022).

The psychological impact of PCOS in unmarried women can be significant, with increased feelings of stigma and isolation. Studies have shown that unmarried women with PCOS may experience heightened levels of anxiety and depression due to societal expectations and personal distress related to fertility issues (Diamanti-Kandarakis & Dunaif, 2023). Additionally, the lack of a partner may reduce the availability of emotional and practical support, which can further impact the management of PCOS symptoms and overall quality of life.

Addressing these concerns requires a multifaceted approach, including increased psychological support and counseling for unmarried women with PCOS. Supportive interventions can help alleviate some of the emotional burdens associated with the condition and improve overall health outcomes (Dumesic & Lobo, 2023).

Occupation and PCOS. The impact of occupation on PCOS can be significant, particularly concerning work-related stress and lifestyle factors. Occupations that involve high levels of stress or irregular working hours can exacerbate PCOS symptoms. Chronic stress is known to impact endocrine function and can contribute to hormonal imbalances commonly seen in PCOS (Hart & Hickey, 2020). Additionally, sedentary jobs may contribute to weight gain, which is a common concern for women with PCOS. Obesity can worsen insulin resistance and exacerbate the symptoms of PCOS, creating a challenging cycle for affected individuals (Diamanti-Kandarakis & Dunaif, 2023).

On the other hand, occupations that promote a healthy work-life balance and offer flexibility may help mitigate some of the stress associated with PCOS. Employers who support employee wellness through programs that promote physical activity and stress management can positively impact the health outcomes of women with PCOS (Dumesic & Lobo, 2023). Furthermore, job-related factors such as access to healthcare benefits and workplace support systems can influence the management of PCOS. Women with access to comprehensive health insurance and supportive work environments are more likely to engage in regular medical care and adhere to treatment plans (Hart & Hickey, 2020).

Management of Distress

Different therapies are used to manage the distress in different domains but CBT is evident to manage the distress. Cognitive Behavioral Therapy (CBT) is a well-established psychotherapeutic approach that addresses a range of psychological, spiritual, and social distress by focusing on the interaction between thoughts, feelings, and behaviors. This approach has been extensively studied and validated, demonstrating its effectiveness in treating various forms of distress and improving overall well-being.

Psychological distress, encompassing disorders such as anxiety, depression, and stress-related conditions, is one of the primary areas where CBT has shown considerable efficacy. In the realm of anxiety disorders, CBT employs techniques such as cognitive restructuring and exposure therapy. Cognitive restructuring helps individuals identify and challenge irrational or maladaptive beliefs that contribute to their anxiety. Exposure therapy involves gradually confronting feared situations or objects to reduce avoidance behavior and anxiety. Recent meta-analyses have reaffirmed the effectiveness of CBT in treating anxiety disorders, showing significant reductions in symptoms and improvements in functioning

(Cuijpers et al., 2021). This approach equips individuals with practical skills to manage anxiety, making it a valuable tool for long-term anxiety reduction.

In treating depression, CBT focuses on modifying negative thought patterns and behaviors that perpetuate depressive symptoms. Techniques such as cognitive restructuring, which aims to correct distorted thinking patterns, and behavioral activation, which encourages engagement in pleasurable and meaningful activities, are central to this approach. Recent research has reinforced CBT's effectiveness in treating depression, indicating that it is comparable to, if not more effective than, pharmacological treatments (Cuijpers et al., 2022). CBT helps individuals break the cycle of negative thinking and inactivity that often accompanies depression, leading to improvements in mood and overall functioning.

Stress-related conditions are another area where CBT proves beneficial. Stress management techniques within CBT, including relaxation training, problem-solving, and cognitive restructuring, help individuals develop effective coping strategies. A study by Craske, Stein, and Rothbaum (2022) highlights that CBT significantly reduces stress and improves quality of life by equipping individuals with tools to manage stressors effectively. These techniques enable individuals to approach stressors with a more balanced perspective and adopt healthier coping mechanisms, thereby enhancing their ability to manage stress in both immediate and long-term contexts.

In addressing spiritual distress, which involves existential angst, loss of meaning, or conflict with one's spiritual beliefs, CBT can be adapted to meet these needs. Although CBT is inherently secular, it can be integrated with spiritual practices to address existential concerns. For individuals grappling with questions of meaning and purpose, CBT can help reframe beliefs and promote a coherent sense of purpose. Wong and Tomer (2023) emphasize that CBT-based interventions can assist individuals in developing a sense of meaning,

reducing existential distress, and improving overall psychological well-being. By incorporating spiritual values and practices, therapists can enhance the relevance and effectiveness of CBT for individuals facing spiritual crises.

When clients experience conflict between their spiritual beliefs and mental health issues, CBT can be adapted to respect and integrate these beliefs. Recent studies suggest that integrating spiritual practices into CBT can improve treatment outcomes by aligning therapeutic goals with the client's values (Pargament et al., 2022). For example, a client struggling with guilt or shame might benefit from CBT strategies that address these emotions while also incorporating spiritual practices such as forgiveness and self-compassion. This integration allows for a more holistic approach to therapy, acknowledging the role of spiritual beliefs in shaping clients' experiences and responses.

Social distress, which encompasses difficulties in interpersonal relationships, social skills, and social support networks, is another area where CBT is effective. In the context of interpersonal relationships, CBT focuses on improving communication skills and conflict resolution strategies. Recent research highlights that CBT helps clients recognize and modify maladaptive relationship patterns, enhancing their ability to form and maintain healthy relationships (Dimidjian & Hollon, 2023). Techniques such as assertiveness training and social skills training are integral components of CBT that address interpersonal issues and improve relational dynamics.

Social skills training is particularly beneficial for individuals with social anxiety or those struggling with social interactions. Recent studies have demonstrated that CBT-based social skills training improves social functioning and reduces social anxiety by teaching practical skills for initiating and maintaining social interactions (Heimberg et al., 2022). Additionally, CBT helps individuals build and utilize social support networks, which are

crucial for coping with social distress. By enhancing social skills and fostering supportive relationships, CBT helps individuals navigate social challenges more effectively.

Rational Emotive Behavior Therapy (REBT), developed by Albert Ellis in the 1950s, is a prominent cognitive-behavioral approach designed to address and alleviate various forms of distress by focusing on changing irrational beliefs and promoting rational thinking. This therapy targets maladaptive thoughts and behaviors that contribute to emotional and psychological issues, aiming to foster a more balanced and rational perspective. While REBT has proven effective in treating psychological, spiritual, and social distress, recent research suggests that it may be less effective compared to Cognitive Behavioral Therapy (CBT) in certain areas. This essay explores the role of REBT in overcoming these types of distress, examining its applications, effectiveness, and comparisons with CBT.

Psychological distress, including anxiety disorders, depression, and stress-related conditions, is a primary focus of REBT. The therapy's core principle is that irrational beliefs, such as demanding perfection or catastrophizing, underpin emotional disturbances. For anxiety disorders, REBT helps individuals identify and challenge irrational fears and exaggerated concerns. Techniques like cognitive restructuring are employed to replace maladaptive thoughts with more rational ones. Recent research supports the effectiveness of REBT in reducing anxiety symptoms, but it also highlights that CBT may offer superior outcomes in this domain. A meta-analysis by Hofmann et al. (2022) indicates that while REBT is effective for anxiety, CBT generally demonstrates higher efficacy, particularly through its structured exposure-based interventions and comprehensive cognitive restructuring techniques. In addressing depression, REBT focuses on altering irrational beliefs that contribute to negative self-evaluation and hopelessness. The therapy employs cognitive restructuring to challenge and modify these maladaptive thoughts, aiming to

alleviate depressive symptoms. Research has shown that REBT can be effective in reducing depressive symptoms, but recent studies suggest that CBT often provides greater benefits. For example, Cuijpers et al. (2022) found that CBT is generally more effective than REBT for treating depression, partly due to CBT's emphasis on behavioral activation and its broader array of evidence-based techniques. The therapy focuses on improving communication skills and addressing irrational beliefs that contribute to relational difficulties. Techniques such as cognitive restructuring and behavioral experiments help individuals recognize and modify maladaptive relationship patterns. While REBT is effective in enhancing interpersonal relationships, recent research indicates that CBT may offer superior results in this area. CBT's structured approach to social skills training and its emphasis on practical techniques for improving social interactions often lead to more significant improvements in social functioning (Dimidjian & Hollon, 2023). Social skills training, a component of REBT, is particularly beneficial for individuals with social anxiety or difficulties in social interactions. REBT helps individuals develop practical social skills and address irrational beliefs that contribute to social anxiety. Research by Heimberg et al. (2022) indicates that while REBT-based social skills training can be effective, CBT's structured approach, which includes exposure therapy and social skills training, often leads to more substantial improvements in social functioning and reduced social anxiety.

Despite its strengths, REBT has limitations compared to CBT, particularly in the areas of effectiveness and applicability. CBT generally offers a more comprehensive and structured approach to therapy, incorporating a wider range of techniques and strategies for addressing various forms of distress. For instance, CBT's emphasis on behavioral activation, exposure therapy, and skills training often results in better outcomes for anxiety, depression, and social distress. While REBT remains a valuable therapeutic

approach, its narrower focus on irrational beliefs and cognitive restructuring may not always match the breadth and depth of CBT interventions.

Despite its widespread effectiveness, CBT is not without limitations. Some individuals may find traditional CBT approaches insufficient for addressing deeply ingrained spiritual or existential issues. For these cases, integrating CBT with other therapeutic approaches, such as Acceptance and Commitment Therapy (ACT) or mindfulness-based therapies, can provide a more comprehensive treatment. Hayes, Strosahl, and Wilson (2023) discuss how combining CBT with mindfulness and acceptance strategies can enhance therapeutic outcomes by addressing both cognitive and emotional aspects of distress.

Cultural and individual differences also impact the effectiveness of CBT. Ensuring that CBT is culturally sensitive and adaptable to individual needs is crucial for its success. Recent research emphasizes the importance of cultural competence in therapy, noting that adapting CBT to fit the cultural and individual needs of clients can significantly enhance its effectiveness (Sue & Sue, 2023). Therapists must consider clients' cultural backgrounds, spiritual beliefs, and social contexts to tailor CBT interventions appropriately, thereby improving the therapeutic alliance and outcomes.

For a Muslim, the sources of anxiety and sadness extend beyond external influences and illogical thought processes, encompassing a deficient connection between the individual and Allah SWT. Depression and hopelessness arise from the belief that one's life will never experience any positive outcomes. According to Lalani et al. (2021), Muslims believe that Allah SWT consistently assists impoverished individuals, in need, or without strength. Patients were assisted in cultivating a more structured and pleasant lifestyle by the provision of Islamic homework assignments, including timely prayer observance and recitation. The study demonstrated that the use of Islamic principles and practices in cognitive behavior

therapy effectively alleviated symptoms of anxiety and depression. The intervention focused on training clients to develop logical and adaptable thinking, resulting in long-term symptom relief (Husain & Hodge, 2016). Cognitive behavior therapy assists individuals suffering from depression and anxiety by facilitating the development of adaptive coping mechanisms to effectively manage their everyday life stressors and challenges. Similarly, Islam offers Muslims a set of guidelines for conduct, morality, and societal principles, enabling people to endure and cultivate effective methods for managing challenging life circumstances (Bulbulia & Laher, 2013). The Arabic term "Islam" translates to "submission," highlighting the fundamental essence of Islam, which entails surrendering to the divine will of Allah. Depression arises when an individual fails to accept the circumstances occurring in their life. However, when an individual surrenders to Allah, they find contentment in all of His decisions and are better equipped to handle challenges and hardships. Islam promotes the need of maintaining hope, especially in the face of severe wrongdoing or challenging life circumstances, since Allah's mercy is always available (Laher & Khan, 2011). Adverse life experiences are a significant contributing element to the development of depression. Islam significantly contributes to assisting Muslims in managing adverse life circumstances, hence aiding in the prevention and alleviation of depression. Islam, being a faith that promotes optimism, strongly rejects feelings of despondency. Islam embodies the principle of compassion and benevolence bestowed upon humanity by Allah SWT. Allah SWT instills optimism in individuals, urging them not to succumb to despair in the face of adversity, as it often paves the way for subsequent positive outcomes (Lari et al., 2008).

Religious and spiritual beliefs can impact how individuals see significant occurrences in their life and the significance they attribute to such occurrences (Koenig, 2012). These interpretations can result in less stress, enhanced flexibility and functionality, or heightened stress and coping challenges. Hence, it appears that Cognitive Behavioral Therapy (CBT),

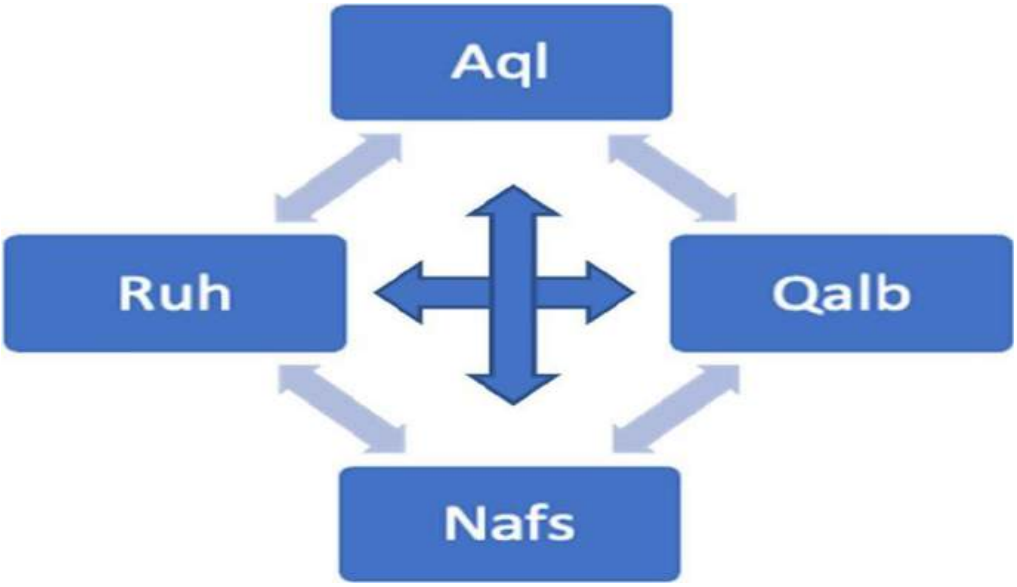
which emphasizes beliefs, would be a suitable method to tackle deeply ingrained difficulties related to religion and spirituality that are rooted in belief systems. In their 2007 study, Smith, Bartz, and Scott performed a meta-analysis of 31 outcome studies on spiritual treatments. They found empirical evidence suggesting that spiritual-oriented interventions may have positive effects on patients suffering from psychological issues such as depression, anxiety, stress, and eating disorders. Examining CBT interventions in detail, Hodge (2006) analyzed 14 studies that investigated the effectiveness of R/S CBT in addressing various psychological issues such as depression, anxiety disorders, and schizophrenia. The findings indicated that R/S CBT is a proven and effective approach for treating depression in individuals who identify as Christians. Additionally, it is likely to be an effective intervention for depression among individuals who identify as Muslims.

Islamic Integrated Cognitive Behavioural Therapy is a modified form of the manualized therapeutic approach Religiously Integrated Cognitive Behavioural Therapy (Islamic version), which was originally developed by Pearce et al. (2015). Religiously incorporated cognitive behavioural therapy (CBT) for the treatment of depression in individuals with chronic medical illness integrates religious beliefs, practices, practices, and resources. Ghazali (1986), a renowned Islamic philosopher from the eleventh century, proposed that human nature is composed of four interrelated elements: the "aql" (intellect), the "qalb" (heart), the "nafs" (self), and the "ruh" (spirit). The "aql" is considered to be the cognitive aspect of human beings, primarily focused on rationality and logical reasoning (similar to the cognitions in Cognitive Behavioral Therapy), whereas the "qalb" is believed to be the emotional center where all feelings are housed. Ghazali (1986) did not address or make an effort to explore the concept of the "heart" from a biological perspective, as noted by Kemahli (2017). In contrast, Ghazali (1986) defined the "heart" in a manner that was focused on spirituality and psychology. He used this term to refer to the primary faculty responsible

for acquiring knowledge and understanding the intricacies of the physical universe (Çağrıcı, 2013).

Figure 3

Component of Human Nature



Note: **The Model of Psyche given by Ghazali in 1896. Fro "Islamic conception of psychological nature of man; development and validation of scale with special reference to Al-Ghazali's model" by S.Shamsudeen and S.Rosly, journal of Ethics andSystem, 34(3), 325.**

The "aql" was supposed to filter out maladaptive ideas and harmful behavioral impulses, while the "qalb" was believed to have regulatory roles for all components of the psyche. Ghazali emphasized the close relationship between the "qalb" (heart) and the "aql" (faculty of reason). He compared the heart to a ruler of a city, and the faculty of reason to the ruler's advisor with knowledge and will. Similar to how the vizier oversees the activities on behalf of the sultan, who has the ultimate authority; the "qalb" was thought to play a crucial function in preserving balance within and among all the aspects of the psyche. This conceptualization diverges from CBT's account of human nature, which, on the other hand,

regards ideas as the dominant force (Haque, 2004; Kemahli, 2017).

Therapists are advised that in order to achieve permanent recovery, it is necessary to address the emotions, referred to as "qalb," in therapy. It is considered that relying just on the intellect, known as "aql," is not enough to bring about significant change (Rothman, 2018). Consistent with the Islamic tradition, clients of Cognitive Behavioral Therapy (CBT) frequently express a disconnect between their logical beliefs (cognitions) and their emotional responses, which CBT refers to as the "heart-mind lag" (Lee, 2005). Clients may possess cognitive awareness of being loved, esteemed, or appreciated, yet, they may harbor a profound and ingrained sense of inadequacy. It is essential to acknowledge and tackle this delay in processing information and the accompanying emotional response, since it is a critical aspect of Cognitive Behavioral Therapy (CBT) for facilitating transformation (Kennerley et al., 2017), similar to the assertions made by Muslim scholars.

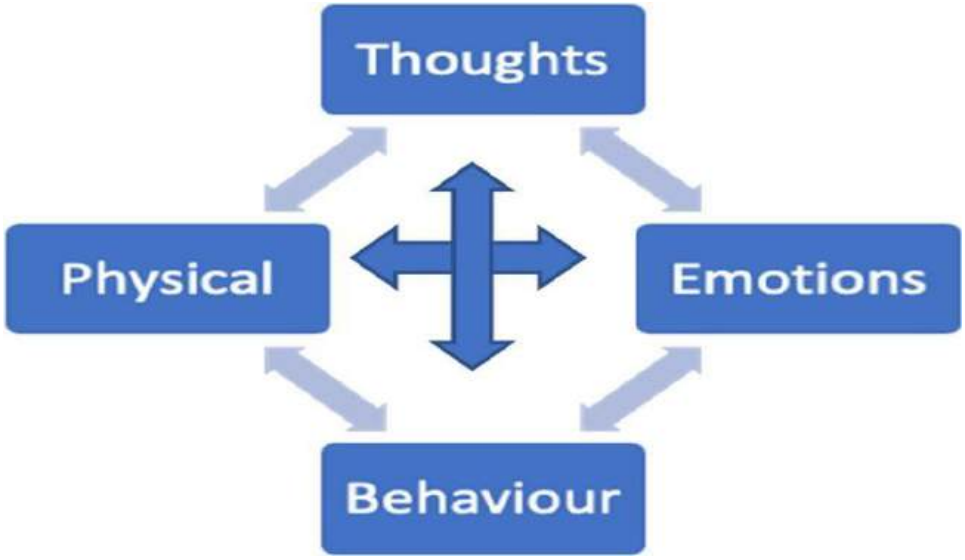
The significance of the "qalb" in the Islamic framework is further demonstrated by its involvement in generating adaptable or maladaptive patterns with the other aspects of the model. For instance, the "qalb" has the capacity to either direct its focus towards the "nafs," which may initiate a harmful pattern, or it may raise itself to a superior condition by directing its attention to the most spiritual aspect of the mind, known as the "ruh" (Rothman & Coyle, 2020). When the “qalb” bends towards the “nasf”, it falls prey to the nafs’ most primal and primitive urges.

An analysis of Ghazali's (1986) understanding of the "nafs" indicates that it can be linked to the behavioral aspect of Cognitive Behavioral Therapy's Hot Cross Bun model. Specifically, it relates to the safety behaviors and behavioral tendencies that are performed to alleviate an immediate urge, despite being unhelpful in the long run. When someone cannot bear the conflict between their rational thinking ("aql") and their emotions ("qalb"), they may give in to their impulsive behavior in order to suppress these aspects of their personality.

Indulging the “nafs” could offer some badly sought relief, albeit short term and temporary. However, this alleviation might potentially initiate a harmful pattern in which worry arises if the "nafs" is not consistently gratified. It has been suggested that the CBT’s principle of Interdependence between cognitions, thoughts, physical sensations and behaviour as shown in figure 4 is consonant with Ghazali’s (1986) conceptualisation of the human psyche (Fig. 3).

Figure 4

Greenberg and Padesky’s (1995) model



Note: **Multiple aspect human psyche define in Hot Cross Bun odel. From “Integrating Cognitive Behavioural and Islamic Principles in Psychology and Psychotherapy: ANarrative Review by A.Chucchi, 2022, *Psychological exploration*, 61(1),p. 4849**

If the "qalb" were to direct its attention towards the "ruh", it would move towards the most pure aspect of the mind. The "ruh," as opposed to the "nafs," symbolizes the most conceptual facet of human nature—an attempt to forge a rapport with the divine. The "ruh," which is said to have been bestowed by God upon humanity (Holy Quran, Al Hij'r, 15:29) when He said "I have blown My spirit into it," empowers individuals to establish a more

profound and intimate bond with the spiritual domain in comparison to all other sentient beings. The "ruh" is a constituent of the human psyche regarded as pure and resolute. There is a belief that this location harbors the influence of God and provides opportunities for individuals to encounter divine wisdom and healing (Rothman & Coyle, 2018). Humans are intrinsically motivated to pursue spirituality and endeavor to attain closeness with the Divine by virtue of their "ruh" origins and inherent divine essence, which is regarded as having an innate propensity to seek proximity to God (Lodi, 2018).

The concept of "ruh," which is not incorporated into the cognitive behavioral framework, aligns more closely with the humanistic notion of "self-transcendence," the final stage in Maslow's hierarchy of needs-based "self-actualization" process (Maslow, 1962). Maslow's (1971) definition of self-transcendence pertains to the highest level of human awareness, during which beings transcend their own limitations and forge a bond with the universal spiritual essence that is intrinsic to all beings, including the natural world and the universe. Likewise, when individuals surpass the instinctual tendencies influenced by the "nafs" and, instead, nurture the spiritual essence of the "ruh", they attain an ideal state of functioning and well-being. Notwithstanding theoretic speculations regarding the correspondence between Western and Islamic components, it is widely believed that these components are intrinsically interconnected. Changes in the entire system would consequently result from any imbalance in a single component. For example, the lack of logical deliberation (aql) could impede the ability to make decisions regarding the prioritization of philosophical and spiritual considerations (ruh) over instinctual desires (nafs). Consequently, this may influence the emotional center (qalb) of an individual. A healthy mind, on the other hand, wouldn't fight to control its lower behavioral urges because it would know that its goal is to go beyond them in order to connect spiritually with God. This is because a high intellect would work in tandem with a healthy emotional regulation

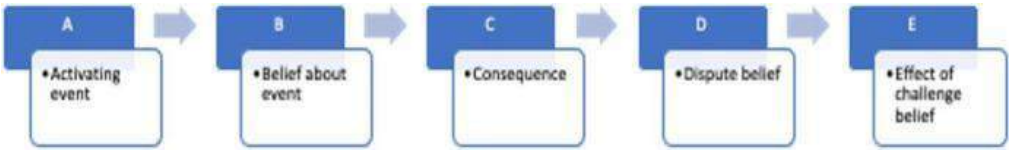
system. These interconnections are confirmed by a hadith from Al Bukhari (translated by Khan, 1998): "The heart is an organ in the body such that if it is healthy, the entire body is healthy; if it is unhealthy, the entire body is unhealthy."

Both theories primarily depend on the interrelationships among the various components of the cycle, although they differ in their areas of emphasis. CBT places greater emphasis on the intellect, whereas this position contends that the heart serves as the "command center" (Lodi, 2018). Also, Ghazali's (1986) view supports the idea that it's silly to think that someone can achieve their spiritual goals without also taking care of their physical health (Kemahli, 2017).

Professionals have suggested that the original secular cognitive model should include the client's religious beliefs, but therapists and researchers should be cautious about assuming that all clients follow the same spiritual and religious practices (Hamdan, 2008; Lodi, 2018; Pearce et al., 2015; Rothman, 2018).

Figure 5

ABCDE" model of Rational Emotive Behhavioral Therapy



Note. **ABCDE frae work of Rational Emotive Behavioral Therapy given by Ellis in 1962.Fro "Developing Performance Using Rational Emotive Behavior Therapy (REBT): A Case Study with an Elite Archer"by A.Wood, J.Barker and .Turner, 2017, *Sport psychologist,* 31(1), p.79**

Pearce et al. (2015) expanded the "ABCDE" framework of Rational Emotive Therapy developed by Ellis (1962) to form the ABCD-R-E model. While not explicitly tailored to Islam, the manualized framework provides a thought-provoking foundation for expanding upon with more particular Islamic principles. The variables A, B, C, and D are utilized to

denote the activation event, belief, outcome, and dispute, respectively. The religious belief that is lacking in the secular paradigm is encompassed within the R. Inquiries such as 'To what extent does your viewpoint regarding God or religion facilitate you in confronting pessimistic thoughts and suggesting alternative convictions?" may afford certain individuals a more thorough and personally meaningful process of self-reflection. Pearce et al. (2015) posit that this provides an appropriate basis for attaining an effective new belief and consequence (E). A 10-session framework is suggested by Pearce et al. (2015), which commences with a psychoeducation model. Subsequently, behavioral activation and the identification and interrogation of negative automatic thoughts are conducted. Subsequently, the focus shifts to the exploration and discussion of spiritual challenges, thankfulness, altruism, and spiritual progress.

Likewise, Sabki et al. (2019) adapted the therapy developed by Pearce et al., 2018 to produce a 10-week Sharia'a-compliant cognitive behavioral therapy (CBT) program. Individuals who suffer from a chronic physical ailment and exhibit symptoms of depression are the target population for this program. Building upon the aforementioned explanation of Al Ghazali's (1986) comprehension of the human psyche and predicated on the notion that character fortification occurs via soul purification and the cultivation of divine happiness (Tazkiyah al Nafs Model), Sabki et al. methodically incorporated the teachings of the Muslim scholar into their therapeutic framework.

In 1986, Ghazali presented a paradigm comprising five constructs to fortify human nature. The preliminary phase of this framework entails the development of self-awareness, which is called "Knowledge of Self" (Ma'rifah al Nafs). Before commencing the Purification of the Heart (Takhalli) voyage, it was strongly advised that individuals ascertain a life purpose that was consistent with Islamic teachings, set objectives, and proactively anticipate potential resistance. This entailed a determination to surmount adverse qualities through the

study of the Prophets' lives as expounded in the Quran and other relevant literary works. Following the cleansing of the heart, phase iii of the "Cultivation of the Heart" (Tahalli) procedure initiated. The primary aim of this stage was to develop internal fortitude by means of engaging in the observance of memory (Zikr) and repentance (tawbah). Following this, one was to apply this renewed vitality to both their material and spiritual selves. Continuous Self-Evaluation (phase IV; Muhasabah al Nafs) was found to be essential in guaranteeing the resolution of issues. Achieving transcendental, divine pleasure (al Saadah) (phase v) was the ultimate objective, both in this life and the next.

According to Sabki et al. (2018), the first two sessions of their ten-week program correspond to the initial component of Ghazali's (1986) approach. During these sessions, the authors introduce Islamically Integrated Cognitive Behavioural Therapy (IICT) and the notion of Walking by Faith, in addition to establishing rapport. Clients are motivated to engage in introspection as a means of fostering connections with others and cultivating confidence in the therapeutic process, notwithstanding any initial lack of understanding. The third and fourth sessions, entitled "The Battleground of the Mind" and "Capturing All Thoughts," respectively, pertain to the notion of "Heart Purification." It is advisable for customers to acknowledge the correlation between natural automatic thoughts (NATs) and emotions. As alternatives to secular therapies, religious convictions and deliberate, contemplative prayer are suggested to foster the formation of more flexible cognitive patterns and maintain attention on the present. The subsequent four sessions, delineated as "getting through bereavement," "navigating spiritual challenges," "expressing gratitude," and "demonstrating generosity," aim to foster the development of the heart (Ghazali, 1986). This objective will be accomplished by means of cognitive restructuring based on the Quran and discussions that revolve around exemplary figures of courage and optimism. Spiritual development, the final topic covered in the Sabki et al. (2019) course, emphasizes the

importance of self-evaluation in pursuit of transcendental pleasure, which Ghazali (1986) also termed "Hope."

Hamdan (2008), Husain and Hodge (2016), and Lodi (2018) suggest that for clients with a spiritual inclination, secular cognitive restructuring statements in CBT could be modified to include religious elements. Rothman (2018) argues in favor of encouraging individuals to replace negative thoughts and associated cognitive biases with more beneficial religious beliefs, such as "dua's" (supplications), "dhikr" (remembrance of God), or "dua's." This approach is consistent with the positive psychology principles proposed by Seligman (2004) and the teachings of Al Balkhi (Badri, 2013).

In the same vein, Lodi (2018) advocates for the reinterpretation of non-religious interventions through the lens of the biography of the Prophet Mohammed and suggests that Socratic inquiry be infused with a spiritual dimension. To illustrate, in order to conform to a more religious standpoint, the traditional cognitive behavioral therapy inquiry "What would my best friend say about this?" could be adapted to read "What would the Prophet Mohammed say or do in these circumstances?" Further philosophical investigations may involve consulting the teachings of the Quran regarding a specific subject and its possible ramifications for the afterlife of an individual (Lodi, 2018). Moreover, an idea has surfaced to integrate elements of behavioral activation and third-wave cognitive behavioral therapy (CBT) into a framework consistent with Islamic principles. This entails establishing the "compassionate mind" as the cognitive framework embodied by the prophet Mohammed, and motivating behavioral change through actions that draw inspiration from his teachings (Lodi, 2018).

Furthermore, incorporate mindful practices such as "Wudu" (ablution), "Salat" (prayer), and "Tafakkur" (contemplation of God) into mindfulness exercises also been suggested by the professionals (Rothman, 2018). The cultural significance of the

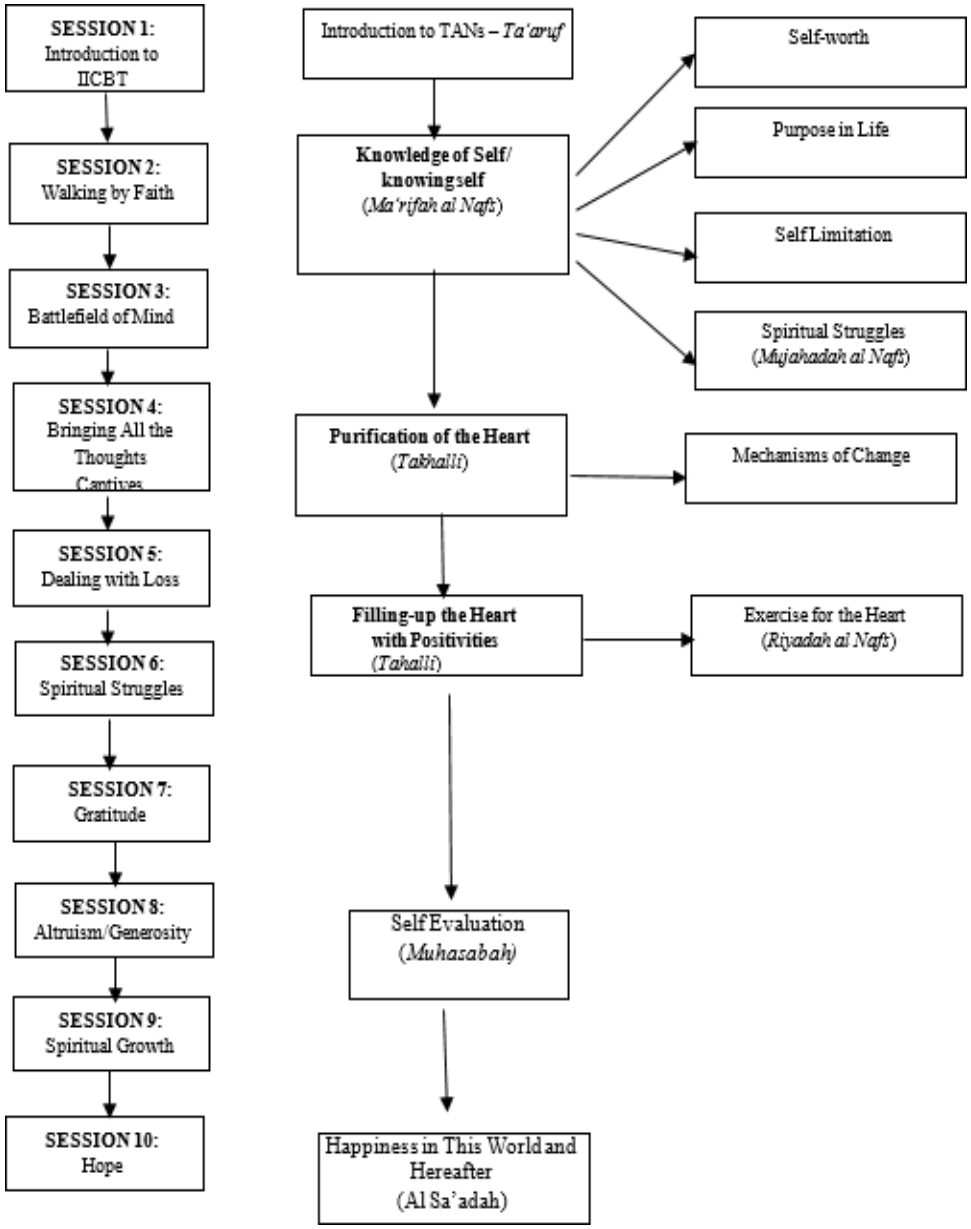
interventions is increased by harmonizing them with the teachings of early Muslim scholars, specifically the assertion that "nothing in your prayer counts except that in which you are mindful" (Al-Ghazali, 2010). It is essential to utilize cultural adaptations of non-religious frameworks in order to maximize commitment and participation in the model (Cucchi et al., 2020) and to protect against the dangers of dominant global influence (Thomas et al., 2016).

The potential effectiveness of conventional interventions has been validated by numerous studies (Van der Watt et al., 2018). Engaging in partnerships with religious healers may yield advantageous outcomes in terms of community integration of mental health services, facilitation of treatment acceptance, and alleviation of social stigma. In such situations, it is critical to establish clear and specific differentiations between the boundaries of psychotherapy and religion. Having truthful and transparent discussions about this matter is especially essential, particularly with clients who might feel uneasy about the course of treatment (York-Al Karam, 2018).

Similarities between IICBT and Ghazali Concept of Takiyah-e- Nafs Furthermore, it is critical to refrain from making the assumption that every Muslim possesses an identical religious perspective (Haque, 2018a). The process of integration ought to be customized to suit the specific needs and preferences of each client. The Holy Quran clearly indicates that there is no coercion in terms of religion (Al Baqarah, 2:256).

Figure 6

Similarities between IICBT and Ghazali concept Tazkia e Nafs



Note: **Similarties between *IICBT and Ghazali concept Tazkia e Nafs*. From "Integrating Cognitive Behavioural and Islamic Principles in Psychology and Psychotherapy: A Narrative Review by A.Chucchi, 2022, *Psychological exploration*, 61(1), p. 4849**

Pakistani Context

The prevalence of Polycystic Ovary Syndrome (PCOS) in Pakistan is reported to be 52%, according to a study conducted by Akram and Roohi in 2015. Similarly, a study done in Pakistan revealed a depression score of 61.8% (Sidra et al., 2019). Research done in Pakistan found that patients with PCOS had higher scores for anxiety and depression (Jedel et al., 2009).

Polycystic Ovary Syndrome (PCOS) is a complex endocrine disorder affecting a notable segment of the female population globally. In Pakistan, this condition is particularly significant due to its profound implications across various aspects of women's lives. The psychological, spiritual, and social burdens of PCOS in Pakistan are multifaceted and deeply intertwined with the cultural and societal fabric of the country (Akram & Roohi, 2015).

PCOS is characterized by hormonal imbalances, leading to symptoms such as irregular menstrual cycles, hirsutism, acne, and obesity. The condition can also result in long-term health issues such as diabetes and cardiovascular problems (Azziz et al., 2004). In Pakistan, where medical awareness and access to healthcare can be variable, the challenges associated with PCOS are compounded by a lack of comprehensive support systems and cultural stigmas.

Psychologically, the impact of PCOS on Pakistani women can be severe. Many women with PCOS experience significant distress due to the visible symptoms of the condition, such as excessive hair growth and weight gain. These symptoms can conflict with societal ideals of female beauty and desirability, leading to substantial mental health challenges. Research indicates that women with PCOS are at an increased risk of developing anxiety and depression (Azziz et al., 2015). The societal pressure to conform to traditional

beauty standards exacerbates these psychological burdens, creating a cycle of distress and self-esteem issues.

In Pakistan, where family honor and societal approval are highly valued, the visible symptoms of PCOS can lead to stigmatization and social ostracization. Women with hirsutism or significant weight gain may face judgment and derogatory comments from their peers and family members. This stigma can significantly impact their self-esteem and mental health, often leading to social withdrawal and a reluctance to seek medical help (Zafar et al., 2019). The psychological strain is further compounded by the pressure to conform to societal expectations of femininity and fertility, which can create feelings of inadequacy and isolation.

The spiritual and religious context in Pakistan also plays a crucial role in shaping the experiences of women with PCOS. Pakistan is a predominantly Muslim country where religious beliefs and practices are deeply ingrained in daily life. Women with PCOS may seek spiritual or religious explanations for their condition, which can influence their approach to managing the disorder. For some, religious faith and practices may offer comfort and a sense of purpose amidst the challenges posed by PCOS. However, there can also be a tendency to view PCOS through a spiritual lens of punishment or divine will, which can affect how women perceive and cope with their condition (Nisar et al., 2013).

Traditional beliefs about health and illness often intersect with medical care in Pakistan. Some women may turn to traditional healers or alternative medicine in addition to or instead of conventional treatments. While traditional remedies may provide a sense of agency and hope, they may not always address the underlying hormonal imbalances associated with PCOS (Raza et al., 2015). The integration of traditional and religious practices with evidence-based medical treatment can be beneficial, but it requires careful navigation to ensure that women receive effective and comprehensive care.

Socially, PCOS imposes significant burdens on Pakistani women, particularly in relation to marriage and family life. In Pakistani society, marriage and motherhood are highly esteemed, and there is considerable social pressure on women to fulfill these roles. The infertility associated with PCOS can be a source of significant stress and stigma, impacting a woman's social standing and familial relationships. Women who struggle with infertility may face intense pressure from their families to conceive, leading to emotional distress and feelings of inadequacy (Shamsi et al., 2016). The societal expectation to conform to traditional roles can create additional psychological burdens for women with PCOS, as they navigate the challenges of managing their health while adhering to cultural norms.

The economic impact of PCOS in Pakistan also cannot be overlooked. The costs associated with diagnosing and treating PCOS, including medical consultations, medications, and diagnostic tests, can be substantial. For women from lower socioeconomic backgrounds, these costs can be prohibitive, leading to a lack of access to necessary medical care and exacerbating the social and psychological challenges associated with the condition (Rizvi et al., 2018). The economic burden can also lead to decreased productivity and increased absenteeism from work, further straining financial resources and affecting overall quality of life.

In terms of support systems, there is a need for greater awareness and education about PCOS in Pakistan. Many women may not have access to reliable information about the condition, leading to misconceptions and delays in seeking appropriate medical care. Public health initiatives aimed at raising awareness about PCOS and providing education on its management can help reduce stigma and improve the quality of care for affected women (Fakhruddin et al., 2017). Additionally, creating support networks and resources for women

with PCOS, including counseling and peer support groups, can help address the psychological and emotional challenges associated with the condition (Khan et al., 2020).

Healthcare providers play a crucial role in addressing the multifaceted burdens of PCOS. Training for healthcare professionals on the psychological, spiritual, and social aspects of PCOS is essential for providing holistic care. Integrating mental health support and counseling into the management of PCOS can help address the psychological impact of the condition and provide women with the tools to cope effectively. Additionally, collaborating with religious and traditional practitioners to provide culturally sensitive care can enhance the overall management of PCOS and support women in their healing journeys. In conclusion, PCOS presents significant psychological, spiritual, and social burdens for women in Pakistan. The intersection of cultural expectations, religious beliefs, and healthcare limitations creates a complex landscape for managing this condition. Addressing these challenges requires a comprehensive approach that includes improving awareness, enhancing access to healthcare, and providing holistic support for women with PCOS. By focusing on these areas, it is possible to reduce the impact of PCOS and improve the quality of life for women in Pakistan (Khan et al., 2024). The significance of subfertility, individuals' perspectives, and biochemical occurrences of PCOS must not be disregarded in the lives of these women. According to Azizi and Elyasi (2017), there is severe anxiety and despair as a result of infertility. The potential antecedents of this depression may include sickness awareness, its societal consequences, the fear of being alone, and unemployment (Stankunas et al., 2006). Various variables contribute to the incidence of psychological problems, with the physical or appearance-related characteristics of PCOS being a significant cause of psychosocial spiritual distress. A recent corpus of research has investigated the impact of symptoms associated with polycystic ovary syndrome (PCOS), such as obesity, high levels of testosterone, and insulin resistance, on the development of depressed or anxious symptoms in affected women (PCOS

consensus workshop group, 2004). Recent data indicates that over 66% of women diagnosed with PCOS are classified as obese or overweight, whereas approximately 75% have symptoms of depression (Akram & Roohi, 2015).

Adolescent girls are often unable to communicate their menstrual cycle-related concerns and receive appropriate counsel due to cultural, social, and familial limitations (Kosidou et al., 2015). Polycystic ovary syndrome (PCOS) is a significant and challenging issue affecting teenage girls globally. It is crucial to detect PCOS early in life by careful screening, timely intervention, and appropriate therapy (Sidra et al., 2019).

In the context of a patriarchal society, many Pakistani males had a misconception regarding infertility, erroneously perceiving it as only a women's issue. Research conducted in Pakistan has revealed that the majority of women experiencing infertility have encountered significant marital discord and have been subjected to physical and verbal abuse (Hakim et al., 2001). The consequences of infertility in Pakistan are severe and include spousal violence, the husband's remarriage, and separation. Furthermore, it can also contribute to social stigmatization in a society where infertility is perceived as a failure to fulfill one's function, resulting in social consequences for both the family and society as a whole. Infertility has a detrimental impact on a woman's life, affecting her marriage and social interactions (Batool, 2016; Hakim et al., 2001; Ismail & Moussa, 2017; Qadir et al., 2013; Rasool & Zhang, 2020).

Hassan et al. (2019) conducted a study that examined the stigmatization of childless women in Baluchistan. They found that this stigmatization is a result of a patriarchal worldview and inflexible cultural beliefs. Moreover, infertility exacerbates the sense of grief, leading to isolation among these women who are unable to have children and adversely impacting their social interactions.

Research conducted by Azziz et al. (2009) found that 18% of childless women in India are affected with Polycystic Ovary Syndrome (PCOS). Infertility is a dual difficulty for women, both on a personal and societal level. When coupled with a lack of patient understanding and pressure from close family members to conceive, it can lead to significant disruption in the patient's personal life. Balen and Bos Balen (2009) classified infertility's social and cultural impacts into four categories: communal effects, economic and in-law implications, legal and familial issues, and religious and spiritual ramifications. In regions with little resources, such as the Indian subcontinent and the Sub-Saharan region, the socio-psychological impacts of not having a child are more significant than those of the more developed Western world. According to Hasanpoor-Azghdy et al. (2015), the consequences of infertility for Iranian women include various forms of violence, such as psychological and domestic physical violence, instability or uncertainty in their marriages, social isolation, which involves avoiding individuals or social events, and voluntary isolating themselves from family and friends, social exclusion and partial deprivation where family members and relatives ignore them, and reduced social interactions and social alienation for the infertile woman. A study conducted in Pakistan has revealed that infertile couples in the country commonly face psychological challenges such as anxiety, melancholy, reduced self-esteem, marital and domestic abuse, and feelings of loneliness (Saddiqi & Tabasum, 2017).

Furthermore, these couples also encounter the disapproval of their family members and the negative responses from the community, which leads to their stigmatization. Stigma is a direct factor contributing to infertility. A study done in Ghana revealed an inverse relationship between the literacy level of women and their experience of stigma and psychological stress due to childlessness. Therefore, common sociocultural effects of infertility include disdain from in-laws, social shame, psychological suffering, spousal violence, and social isolation (Donkor et al., 2017).

The profound feelings of powerlessness and despair conveyed by several women experiencing infertility may hold significant significance as hopelessness starts the vicious cycle of negative thinking about the creator that Allah punishes her through infertility or Allah does not love me, and the phase of spiritual distress goes beyond her coping ability. Ozenli et al. (2009) found that women with PCOS who experienced powerlessness, self-blaming, and a passive acceptance of their position were more likely to have elevated levels of anxiety, sadness, and detachment from the divine source. Parental disapproval resulting from PCOS was identified as an additional indicator of compromised mental well-being. Individuals who experienced persistent criticism and a lack of empathy and support from their parents about PCOS and its symptoms reported a decrease in their quality of life. The female depressive state and self-isolation may be attributed to their parents' persistent criticisms, which might result in a decline in their overall quality of life (Knudsen et al., 2016).

The rationale of the Study

Polycystic Ovary Syndrome (PCOS) is a prevalent endocrine disorder affecting a significant number of women globally, including in Pakistan. It is characterized by irregular menstrual cycles, excess androgen levels, and polycystic ovaries. The condition can lead to various symptoms such as acne, excessive hair growth, and weight gain, which can significantly impact quality of life. In Pakistan, the awareness and understanding of PCOS are still developing. Many women face challenges in obtaining a proper diagnosis and effective treatment due to various factors, including limited healthcare resources, cultural stigmas, and lack of widespread knowledge. This scenario often leads to a heavy reliance on medication as the primary method of managing the condition (Akram & Roohi, 2015).

PCOS affects an estimated 22% of women of reproductive age worldwide, and studies suggest that its prevalence in Pakistan is higher than other country which is 52%. In Pakistani

society, discussions about reproductive health issues can be taboo, making it difficult for women to seek medical advice openly (Aslam et al., 2022). Cultural stigmas around menstruation and female health issues can discourage women from consulting healthcare professionals. This often results in delays in diagnosis and treatment, leading to the exacerbation of symptoms and greater reliance on medications once a diagnosis is finally made (Sharma & Mishra, 2018). For many women in Pakistan, medication becomes the cornerstone of PCOS management. Commonly prescribed treatments include hormonal contraceptives, anti-androgens like spironolactone, and insulin-sensitizing agents such as metformin. These medications aim to address symptoms like irregular periods, excessive hair growth, and insulin resistance. Hormonal contraceptives, such as birth control pills, are frequently used to regulate menstrual cycles and reduce androgen levels. Anti-androgens help manage symptoms like hirsutism (excessive hair growth), while metformin is often prescribed to manage insulin resistance, a common issue in PCOS. However, reliance on medication poses several challenges (Szczuko et al., 2021). Accessibility to these medications can be an issue in remote areas, and the cost can be prohibitive for many women. Furthermore, long-term use of certain medications may have side effects or require ongoing medical supervision, which can be difficult to maintain in a resource-constrained setting (Vigorito et al., 2007).In addition to medication, lifestyle changes play a crucial role in managing PCOS. Weight management through diet and exercise can significantly improve symptoms and insulin sensitivity. However, due to socioeconomic factors and limited access to resources, adopting and maintaining a healthy lifestyle can be challenging for many women in Pakistan (Alam et al., 2021).

When managing Polycystic Ovary Syndrome (PCOS), psychological therapy can often prove more beneficial than medication for addressing psychological symptoms and enhancing resilience. While medications are effective for managing the physical aspects of

PCOS—such as hormonal imbalances, irregular menstrual cycles, and symptoms like acne and excessive hair growth, they do not directly target the psychological impact of the condition. PCOS often leads to significant emotional distress, including anxiety, depression, and body image issues, which are frequently overlooked by a purely medical approach. Psychological therapy, in contrast, specifically addresses these emotional and psychological challenges (Min et al., 2022).

. Cognitive-Behavioral Therapy (CBT), for example, is particularly effective in treating anxiety and depression by helping individuals identify and modify negative thought patterns and behaviors. This therapeutic approach provides a structured framework for individuals to explore and manage their emotional responses to PCOS, thus improving their overall mental health. Therapy also equips individuals with essential skills for stress management, such as mindfulness and relaxation techniques, which are crucial for coping with the chronic stress associated with PCOS (Jiskoot et al., 2020). By fostering resilience through these strategies, therapy enhances an individual's ability to handle the condition's ongoing challenges, promoting better emotional regulation and a more positive outlook on life (Budiyono et al., 2020).Unlike medication, which primarily focuses on symptom relief and may come with side effects such as mood swings and emotional changes, therapy offers a holistic approach that addresses the root psychological causes of distress. This integration of mental health support into the management of PCOS can lead to a more balanced and sustainable approach, enhancing the individual's overall quality of life. Therapy also provides a supportive environment where individuals can express their feelings and receive validation, which can be particularly empowering. By improving self-efficacy and encouraging proactive management of the condition, psychological therapy can help individuals navigate the complexities of PCOS with greater confidence and resilience (Teede et al., 2018).

Both REBT and CBT emphasize the role of cognitive processes in influencing

emotional responses and behaviors. They operate on the principle that distorted or irrational thinking patterns contribute to emotional distress and maladaptive behaviors. Both therapies seek to identify and challenge these dysfunctional thought patterns to promote healthier emotional responses and behavior changes. Both therapies incorporate behavioral techniques to complement cognitive work. In CBT, behavioral interventions include strategies like exposure therapy, behavioral activation, and reinforcement techniques. Similarly, REBT uses behavioral techniques to help individuals practice new ways of responding to stressors and implement changes that align with rational beliefs (Cuijpers et al., 2020).

Cognitive-Behavioral Therapy (CBT) tends to be more effective than Rational Emotive Behavior Therapy (REBT) for managing Polycystic Ovary Syndrome (PCOS) due to its comprehensive approach to addressing both psychological symptoms and behavioral aspects. CBT is designed to address a broad spectrum of issues, combining cognitive restructuring with behavioral interventions. This dual approach is particularly beneficial for individuals with PCOS, who often experience anxiety, depression, and stress related to their condition. CBT helps individuals identify and modify negative thought patterns while also implementing practical strategies for behavior change, such as stress management techniques and lifestyle adjustments. This integrated approach supports both emotional well-being and the development of effective coping mechanisms for managing PCOS symptoms. In contrast, REBT focuses primarily on challenging and changing irrational beliefs to alter emotional responses. While this can be helpful, it may not provide the same level of practical, behavioral strategies as CBT. The comprehensive nature of CBT makes it more adaptable and effective in addressing the multifaceted challenges of PCOS, such as managing stress, improving self-care habits, and enhancing overall resilience (Kananian et al., 2021).

However, CBT is grounded in the secular tradition, the Cartesian dualism and it is not value-neutral. Its principles are rooted in the American's value system and its emphasis on

cognition, logic and rational thinking stems from and reinforces dominant cultural discourses, including definitions of rationality (Kantrowitz & Ballou, 1992) that easily disregard spirituality. Historically CBT has shown little to no attention to religion (Imawasa & Hays, 2018).

Many Muslims attribute the causes of mental illness to the supernatural (Al-Solaim & Loewenthal, 2011; Salem et al., 2009), or a test from God, or indeed to being disconnected from the Creator (Ghazali, 1986; Rothman & Coyle, 2018), and that many believe that recovery ultimately comes from God, these findings should not come as a surprise. It follows that many Muslims continue to feel uncomfortable in seeking psychological support for fear that this might conflict with or not consider their religious beliefs (Sabry & Vohra, 2013).

Islamic principles lay on ontological absolutism, which is in stark opposition to the constructive nature of CBT. Islam maintains that there is an absolute Truth and that "should" ought to exist (Sheikh, 2018). Instead, CBT shies away from "should" (Beshai et al., 2013) and has ontological and epistemological foundations on constructivism. Moreover, CBT's reliance on an internal locus of control and self-determination seems to be in complete opposition to Islam's belief that "Allah is the best of Planners" (Holy Quran, Al Anfal 8:30) and that a believer ultimately has to understand and appreciate the divine plan, even though it might not be what the person had wished for ("You may hate a thing and it is good for you; and you may love a thing and it is bad for you. And Allah knows, while you know not"—Holy Quran, Al Baqarah, 2:216). In addition, the self-determination concept, as well as CBT's highly individualistic nature and focus, cast doubts on its application to a belief system that emphasises worship ("I did not create the Jinn and mankind except to worship me"—Holy Quran, Ad-Dhariyat 51:56). The associated goal can then be inherently different: self-determination for one versus rectification of Islamic psychological processing (Keshavarzi & Khan, 2018), closeness to God and development of the spiritual self for the

other. And whilst the two might coincide, that is not a given. Furthermore, CBT's conceptualisation of the individual as thoughts, emotions, physiology and behaviour seems to be missing a crucial element of the Islamic framework: the soul.By integrating religious or spiritual domains into therapy, individuals can achieve a more holistic approach to managing their health and well-being, provided that these practices align with their beliefs and preferences.

Islamic Integrated Cognitive Behavioral Therapy (IICBT) represents a novel fusion of traditional Cognitive Behavioral Therapy (CBT) techniques with Islamic principles and practices and based on Ghazali principle of Tazkiyah e Nafs adpated version of Religious integrated by Zuraida et al., 2018 originally developed by This integration aims to enhance therapeutic outcomes for Muslim clients by aligning psychological interventions with their spiritual and cultural context. Islamic Integration adds a layer of spiritual and cultural relevance to CBT. Islam, as a comprehensive way of life, encompasses not just spiritual beliefs but also ethical guidelines, social norms, and coping mechanisms. IICBT incorporates Islamic values and practices into the therapeutic process, tailoring interventions to align with the client's religious identity and cultural context. Ali and Alvi (2017) conducted a systematic review of culturally adapted CBT in Pakistan, assessing its effectiveness for treating depression. This review highlighted that adapting CBT to include cultural and religious considerations can enhance therapeutic outcomes. Integrating cultural context into therapy helps align the treatment with clients' values and experiences, which is crucial in predominantly Muslim societies like Pakistan.

Naqvi and Niazi (2018) reviewed Islamic counseling practices in Pakistan, emphasizing how integrating Islamic principles into therapy can address mental health needs effectively. They discussed various Islamic approaches to mental well-being, including the use of spiritual practices and ethical guidelines as part of the therapeutic process. This review

provides a foundational understanding of how Islamic values can be incorporated into therapeutic frameworks.

Rauf and Khan (2020) investigated the role of religious coping mechanisms in the effectiveness of CBT among Pakistani Muslims. Their study found that integrating religious coping strategies such as prayer and reliance on divine support into CBT can significantly enhance therapeutic outcomes. This evidence underscores the value of incorporating religious elements to improve the relevance and efficacy of therapy for Muslim clients.

Ahmed and Qureshi (2021) conducted a pilot study on combining Islamic spiritual practices with CBT in Pakistan. The study explored how integrating practices like recitation of the Quran and daily prayers into CBT sessions can improve mental health outcomes. Results indicated that such integration enhances client engagement and therapeutic effectiveness by aligning therapy with clients' spiritual and cultural values. Khan and Malik (2019) examined the effectiveness of spiritually integrated CBT in managing anxiety and depression among Pakistani Muslims. Their research demonstrated that incorporating Islamic spirituality into CBT not only improved symptom management but also provided clients with a sense of spiritual support. This study supports the use of IICBT in addressing mental health issues while respecting and utilizing clients' religious beliefs. Culturally Adapted CBT: Research has demonstrated the efficacy of culturally adapted CBT for various populations, including Muslims. A study by Hodge (2006) explored the effectiveness of integrating culturally specific practices and religious beliefs into CBT, showing positive outcomes for minority groups. This foundational work supports the broader concept of adapting CBT to fit religious and cultural contexts.

Although there is a scarcity of research conducted on Muslims, there is a limited body of research on the efficacy of islamically modified CBT (Koenig & Shohaib, 2014). Two

research teams have done five studies among devout Muslims in Malaysia. These studies investigated the findings of individuals struggling with anxiety disorders (Razali et al., 2002), depression (Razali et al., 1998), and bereavement (Azhar & Varma, 1995). An additional study was carried out in Saudi Arabia, focusing on Muslims who were grappling with schizophrenia (Wahass & Kent, 1997). Several other cultural groups have also benefited from this basic strategy of modifying CBT self-statements to be consistent with clients' spiritual narratives (Hook et al., 2009). For example, clients struggling with neurosis have benefited from CBT modified with Taoistic precepts (Xiao et al., 1998). The beliefs derived from the Latter Day Saint (LDS) tradition have been employed in treating perfectionism (Richards & Bergin, 2001). D'Souza et al. (2002), 2003, and Nohr (2000) all address the use of general spirituality to assist clients in managing their stress, depression, and bipolar disorder. Christian-based Cognitive Behavioral Therapy (CBT) has been utilized to treat compulsive disorder (Gangdev, 1998) and, particularly, depression (Hawkins et al., 1999; Johnson et al., 1994). Şirin and Göksel (2021) conducted a recent study investigating the provision of spiritual care support to Muslim cancer patients undergoing radiotherapy. The study employed an experimental design to assess the impact of this assistance on the patients' spirituality, anxiety, despair, and distress levels. While direct research on Islamic Integrated Cognitive Behavioral Therapy (IICBT) specifically for Polycystic Ovary Syndrome (PCOS) is limited, in this regard the present study aimed to investigate the effectiveness of Islamic Integrated Cognitive Behaviour Therapy on psycho-socio-spiritual distress and resilience among women suffering from Polycystic Ovary Syndrome.

Polycystic Ovary Syndrome (PCOS) is a complex endocrine disorder that not only impacts physical health but also inflicts psychological, social, and spiritual distress, often affecting an individual’s overall resilience. The multifaceted nature of PCOS, characterized by symptoms such as irregular menstrual cycles, hirsutism, acne, and obesity, can lead to

significant psychological strain. This strain is compounded by the disorder's social and spiritual ramifications, creating a complex interplay that affects a person's resilience.

Psychologically, women with PCOS often face heightened levels of stress, anxiety, and depression. Research indicates that the psychological burden of PCOS is significant, with women experiencing distress related to infertility, body image issues, and the chronic nature of the disorder (Moran et al., 2010). The hormonal imbalances associated with PCOS can exacerbate these psychological symptoms, creating a vicious cycle of stress and physical symptoms. For instance, elevated levels of androgens in PCOS are linked to increased rates of depression and anxiety (Azziz et al., 2009). Additionally, the constant management of symptoms and the fear of long-term health consequences can lead to chronic stress, which further undermines mental health. Socially, PCOS can impact relationships and social interactions. Women with PCOS may experience stigmatization and isolation due to visible symptoms such as excessive hair growth or obesity. This stigmatization can lead to social withdrawal and a diminished quality of life (Kowalska et al., 2006). Moreover, the struggle with infertility can strain romantic relationships and social dynamics, often leading to feelings of inadequacy and frustration (Tzeng et al., 2010). The social stigma associated with PCOS, combined with the pressures of conforming to societal beauty standards, can exacerbate feelings of low self-worth and social anxiety. Spiritually, the distress associated with PCOS can challenge an individual's sense of identity and purpose. For many women, the inability to conceive can lead to a crisis of faith or existential questioning. The societal and cultural emphasis on fertility can create a sense of spiritual emptiness or perceived failure (Schmidt, 2009). Spiritual distress can manifest as a feeling of disconnection from one's self or a higher power, leading to a profound sense of loss and frustration. The struggle to reconcile the disorder with personal beliefs and values can further complicate one's spiritual well-being.

Resilience plays a crucial role in managing the psychological, social, and spiritual distress associated with PCOS. Resilience, defined as the ability to adapt to stress and adversity, is essential for coping with the multifaceted challenges of PCOS. Women who exhibit higher levels of resilience are better able to manage the emotional and social impacts of the disorder, employing adaptive strategies such as seeking support and engaging in self-care practices (Connor & Davidson, 2003). Research suggests that resilience can buffer the negative effects of PCOS-related stress, leading to better overall mental health outcomes (Sacks et al., 2015). Strategies that promote resilience, such as cognitive-behavioral therapy, support groups, and mindfulness practices, can be particularly beneficial in enhancing an individual's ability to cope with the disorder's challenges.

At the international level, prevalence studies on Polycystic Ovary Syndrome (PCOS) have been conducted in various countries, including Iran (Tehrani et al., 2011), the United States (Azhar et al., 2014), Spain (Asunción et al., 2000), Sri Lanka (Kumarapeli et al., 2008), India (Nidhi et al., 2011), Birmingham (Azziz et al., 2004), and South Australia (March et al., 2010).

On the national level, prevalence studies on PCOS were conducted in Karachi (Baqai et al., 2010) (Gul, Zahid, & Ansari, 2014) and Rawalpindi (Nazir et al., 2011) in Pakistan. These studies examined the clinical manifestation, health risks, and quality of life associated with PCOS (Sidra, Tariq, Farukh, & Mohsin, 2019) and the endocrine correlates of PCOS (Akram & Roohi, 2010). Additionally, the relationship between anxiety disorder and PCOS was investigated (Sohail & Nadeem, 2016), and a scale was developed to compare alternative treatments for PCOS (Masroor, Khaliq, Azhar, & Ahmad, 2020).

On the international level, resilience has been studied with coping styles (Wu et al., 2018), academic stress (Mulati, 2022), and aging (Promislow, 2022). On the national level, it has been studied with prenatal mental health (Shireen et al., 2023), perceived stress among

special students (Khalil et al., 2022), and resilience in nursing students (Eja et al., 2023). In Pakistan, research exploring the psycho-social-spiritual distress and resilience among women with Polycystic Ovary Syndrome (PCOS) is notably scarce. This gap in the literature is significant given the profound impact PCOS has on women's lives and well-being. The other main purpose of the study wa to investigate the relationship between psycho-socio-spiritual distress and resilience among women with PCOS.

To effectively manage multidimensional distress, it is important to measure the severity of the distress. Different scales are used to assess PCOS symptoms, but two are more suitable for the assessment. There are also limitations to these two scales. Polycystic Ovary Syndrome Quality of Life (PCOSQ), a 26-item questionnaire developed in the United States, is the most popular QoL measure used in research involving women with PCOS (Cronin et al., 1998). According to WHO, quality of health has six domains: physical health, psychological health, and level of independence, social relationships, environment, and spirituality/religion/personal beliefs. The PCOSQ includes five subscales: emotions, body hair, infertility, weight, and menstrual problems; as four of these subscales focus on physical aspects of the condition, it suggests that the PCOSQ is concerned more with the physical impact of PCOS than psychological, social or environmental aspects.

The second measure, the 36-item Short Form Health Survey (SF-36) developed by Ware and Sherbourne (1992), is used in all types of patients and has been validated in many countries. It consists of 36 items tapping into eight subscales: physical functioning, role physical, role emotional, bodily pain, general health, social functioning, and fatigue. This scale only contains five items about emotional well-being that are insufficient to measure PCOS patients' psychological health PCOS patients. The literature demonstrates that PCOS is not only associated with psychological distress but is linked with social and spiritual distress, so it is necessary to have an indigenous scale to assess multidimensional distress among Muslim women suffering from PCOS. The present study aimed to develop an indigenous

inventory to measure psychological, social, and spiritual distress among women suffering from PCOS. The developed instrument has the quality to assess the severity of psychological, social, and spiritual distress on mild, moderate, and high levels that will help mental health practitioners to develop treatment plans according to the client's needs.

The significance of the present study is at least fourfold. Firstly, it aims to develop an indigenous inventory for the assessment of multidimensional distress among women suffering from PCOS. PCOS women experience psychological, social, and spiritual distress that affects their quality of life. Assessing the severity of psychological, social, and spiritual distress is essential for better management.

Second, this study investigates the relationship between psycho-socio-spiritual distress and resilience among women with PCOS. This will provide important knowledge about resilience and its relationship with distress, which is the main determinant of managing stress and enhancing the mental health of PCOS women. In the future, the inventory can be translated into different languages to enhance its wider use.

Thirdly, on the national level, there is a dearth of literature about Psycho-socio-spiritual distress and resilience linked to PCOS, so this research will impart valuable knowledge to existing liter literature. The literature will discuss PCOS and its consequences and effects on women's mental health. The study will examine the effectiveness of Islamic Integrated on psycho-socio-spiritual distress and resilience among women suffering from PCOS. The result of the study will open the door for other disorders to be treated with an Islamic approach. It also increases the value of Islamic therapeutic concepts compared to western CBT.

The study will be beneficial for the development of a program focusing on women's reproductive health, its importance, and risk factors associated with poor reproductive health

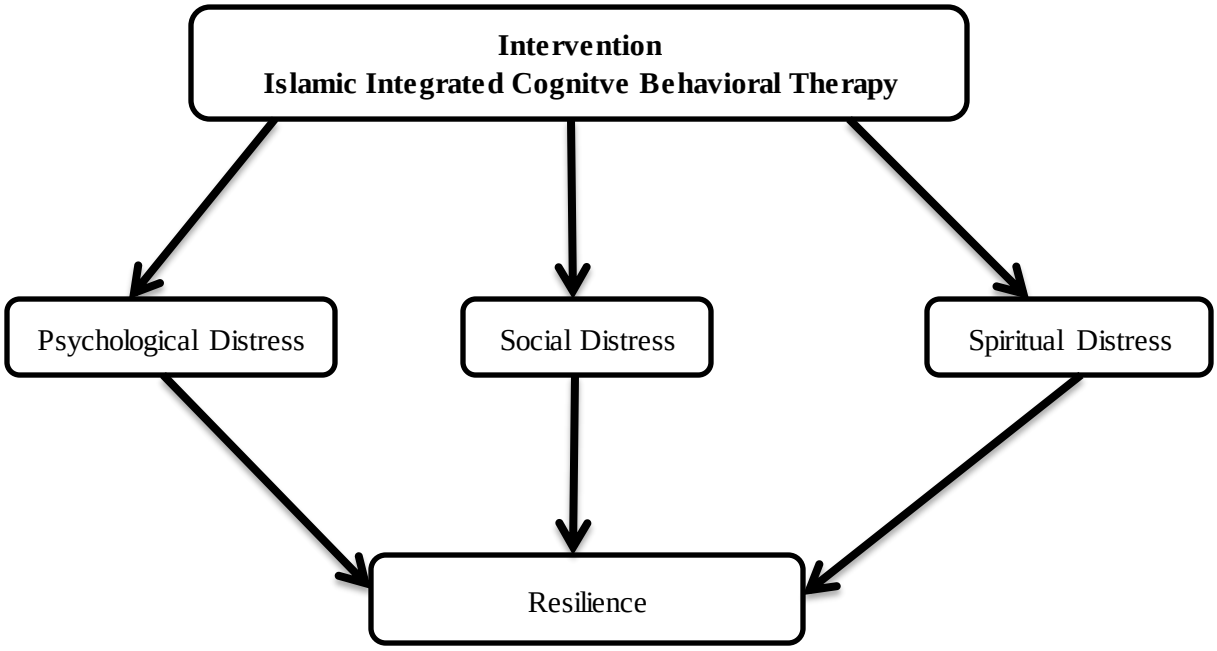
among women at various levels like school, college, universities, and workplaces. Different seminars and workshops can be conducted with the help of teachers and workplace managers.

The study will be beneficial for the policymakers and government to focus on the importance of management of PCOS-associated distress among women because women's mental health is very important for the family but also the advancement of the nation. A new subject and course could be introduced on women's reproductive health in every degree program to promote the importance of women's mental health, as well as the importance of therapy for the management of distress.

The study will be beneficial for mental health practitioners, especially psychologists, to develop indigenous treatment plans for PCOS women according to the severity of distress level. It will also open new horizon for the psychologist to investigate the effectiveness of the IICBT on different psychological problems except distress. It will also open new horizons for psychologists to investigate the effectiveness of IICBT on different medical illnesses like cancer, fibroids, cardiovascular disease, and neurological disease.

Figure 7

Conceptual Framework of Present Study



Note.Conceptual framework of present study.own work

Objectives

The major objective of the study was to investigate the effectiveness of Islamic Integrated Cognitive Behavioral Therapy (CBT) in reducing the symptoms related to psycho-socio-spiritual distress among women suffering with PCOS. More specifically, the study was carried out to attain the following objectives:

1. To investigate the relationship between psycho-socio-spiritual distress and resilience among women suffering from Polycystic Ovary Syndrome.
2. To investigate the effectiveness of Islamic Integrated Cognitive Behavioral Therapy on Psycho-socio-spiritual Distress and Resilience between the experimental and control group of women suffering from Polycystic Ovary Syndrome at pre and posttest level.
3. To compare the experimental and control group women suffering from PCOS on Psycho-socio-spiritual Distress and resilience concerning their age, marital status, working status and socio-economic status.

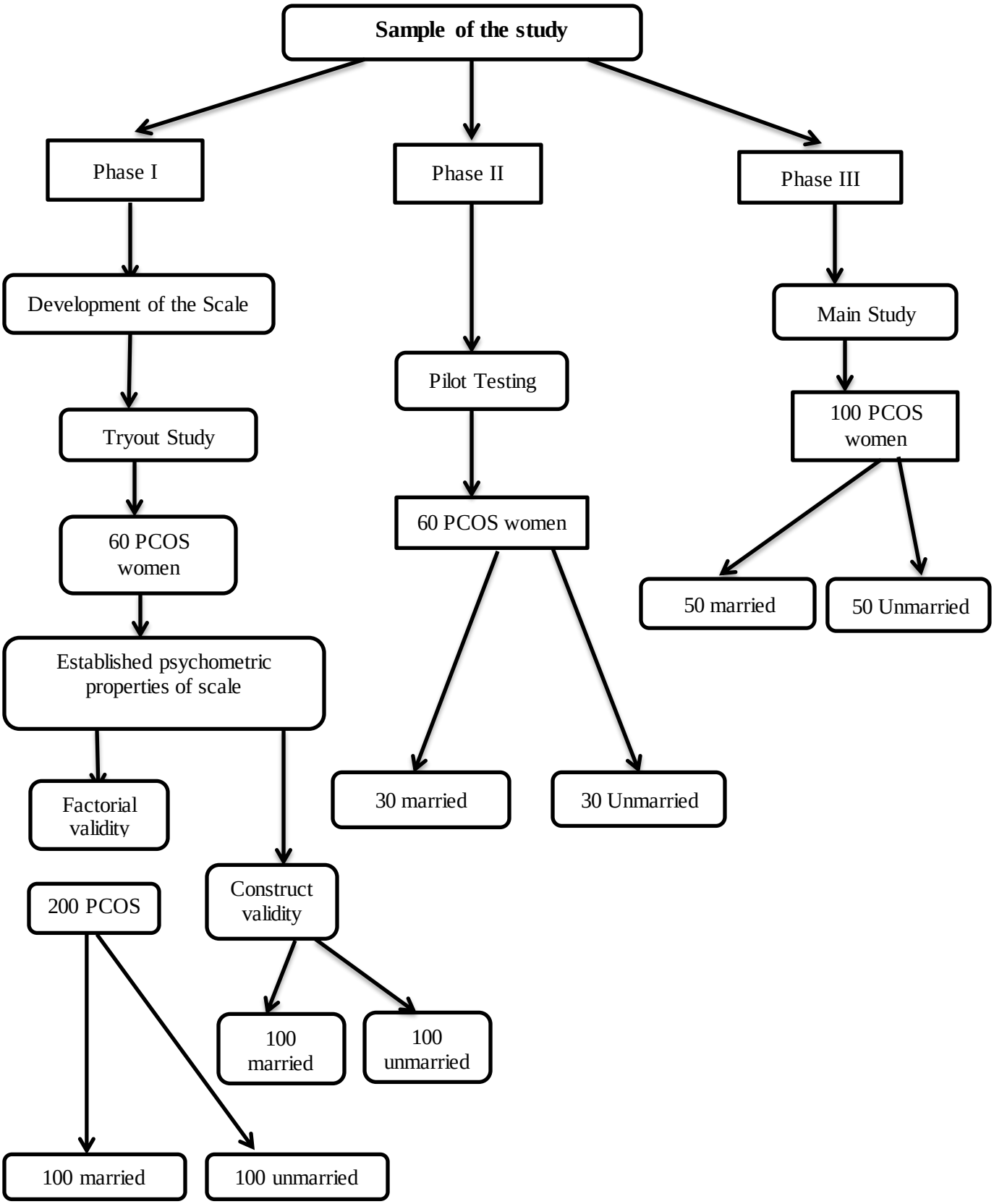
Hypotheses

1. There is a significant relationship between psycho-socio-spiritual distress and resilience among women suffering from polycystic ovary syndrome.
2. At pre-test level before the application of Islamic Integrated Cognitive Behavior Therapy women suffering from polycystic Ovary Syndrome scored high on Multidimensional distress Inventory for polycystic ovary syndrome.
3. At post-test level after the application of Islamic Integrated Cognitive Behavior Therapy women suffering from polycystic Ovary Syndrome score low on Multidimensional distress Inventory for polycystic ovary syndrome.
4. At pre-test level women suffering from polycystic ovary syndrome score low on Connor–Davidson Resilience Scale before the application of Islamic Integrated

Cognitive Behavior Therapy.

5. At post-test level after the application of Islamic Integrated Cognitive Behavior Therapy women suffering from polycystic Ovary Syndrome score high on Connor–Davidson Resilience Scale.
6. There is a significant difference on Psycho-socio-spiritual Distress and Resilience between the experimental and control group of women suffering from Polycystic Ovary Syndrome at pre and posttest level.
7. Younger women scores high on Multidimensional Distress Inventory for polycystic ovary syndrome than elderly women suffering from polycystic ovary syndrome.
8. Younger women scores low on Conner Davidson Resilience Scale than elderly women suffering from polycystic ovary syndrome.
9. Married women score high on Multidimensional distress Inventory for polycystic ovary syndrome -Urdu than non-married women suffering from polycystic ovary syndrome.
10. Married women score low on Connor–Davidson Resilience Scale-Urdu than non-married women suffering from polycystic ovary syndrome.
11. Working women score low on Multidimensional distress Inventory for polycystic ovary syndrome -Urdu than non-working women suffering from polycystic ovary syndrome.
12. Working women score higher on Connor–Davidson Resilience Scale-Urdu than non-working women suffering from polycystic ovary syndrome.
13. Women suffering from Polycystic Ovary syndrome belonging to lower socioeconomic status score higher on the multidimensional Distress Inventory for polycystic ovary syndrome -Urdu than women belonging to middle and higher socioeconomic status.

14. Women suffering from Polycystic Ovary syndrome belonging to lower socioeconomic status score low on the Conner Davidson Resilience Scale-Urdu than women belonging to middle and higher socioeconomic status.


Sample of the study
Phase I
Phase II
Phase III
Development of the Scale
Tryout Study
60 PCOS women
Established psychometric properties of scale
Factorial validity
200 PCOS
100 married
100 unmarried
Construct validity
100 married
100 unmarried
Pilot Testing
60 PCOS women
30 married
30 Unmarried
Main Study
100 PCOS women
50 married
50 Unmarried

Chapter 2

Methods

Research design

The research design of present study is pre-test post test experimental research design. Present study has been comprised of three phases:

Phase I Development of Multidimesional Distress Inventory for Polycystic ovary syndrome-Urdu (MDDI-PCOS-U). This phase dealt with the development of an inventory for measuring the psycho-social-spiritual distress among women suffering from Poly-cystic Ovary Syndrome. This phase also intended to conduct a field study and collection of the data for determination of psychometrics properties of the inventory including reliability and construct validity (convergent and divergent).

Phase II pilot study. Phase II comprised of pilot testing in which pretesting was conducted on small number of participants (N=60) by administering the newly developed Multidimensional distress Inventory for Polycystic ovary syndrome-Urdu (developed during phase I of the present study) and Conner Davidson Resilience Scale –Urdu and measuring the correlation between study variables.

Phase III Main study. For the main study, Multidimensional distress Inventory for Polycystic ovary syndrome –Urdu and Conner Davidson Resilience Scale-Urdu were administered on PCOS women (N=100) who were already been diagnosed with polycystic ovary syndrome on the basis of their medical reports and tests. The participants were provided with a concise introduction and information regarding the purpose of the study, and their informed consent was alos obtained. The participants were provided with the questionnaires. The participants were requested to thoroughly review the instructions and

provide answers to each item with honesty. Additionally, they were assured that their responses would be kept confidential. Their inquiries were duly acknowledged with respect to the inventory. The respondents were acknowledged for their cooperation and participation in the study following data collection. On the basis of baseline assessment, the women (N=40) with polycystic ovary syndrome having moderate to high level scores on Multidimensional distress Inventory for Polycystic ovary syndrome-Urdu and low scores on Conner–Davidson Resilience Scale-Urdu were randomly assigned into two groups, i.e. Experimental and control group. Islamic Integrated Cognitive Behavioural Therapy) was provided to the participants in experimentalntal group to overcome their psychosocial-spiritual distress and to increase the resilience while suffering from polycystic ovary syndrome while for participants in the control group reading material about polycystic ovary syndrome, causes and management was given. The Islamic Integrated Cognitive Behavioral Therapy is comprised of 10 session's therapeutic process that incorporates Islamic principles into the fundamental CBT framework. Upon the completion of session's therapy, Multidimensional distress Inventory for Polycystic ovary syndrome-Urdu and Connor-Davidson Resilience Scale-Urdu were re administered on the participants of the study in both treatment and control group with the aim of investigating the difference between pre and post assessment scores for determining the effectiveness of Islamic Integrated Cognitive Behavior Therapy.

PHASE I: DEVELOPMENT OF THE SCALE

Objectives

Phase I of the present research has the following objectives

1. Exploration of the nature of distress among women suffering from Polycystic Ovary Syndrome.
2. Generating items for the conceptualization of psycho-socio-spiritual distress on the basis of existing literature and focus group discussion.
3. To develop an indigenous scale for the measurement of psycho-social-spiritual distress among Muslim women suffering from Polycystic Ovary syndrome.
4. To measure the alpha coefficient reliability of newly developed Multidimensional distress Inventory for Polycystic ovary syndrome-Urdu.
5. To determine the convergent validity of newly developed Multidimensional distress Inventory for Polycystic ovary syndrome-Urdu by measuring its correlation with Psychological Distress sub scale of Mental Health Inventory-38-Urdu (Jabeen, Hanif & Tariq, 2018), Social Provision Scale-Urdu (Rizwan & Syed, 2010) and Spiritual Attachment Muslim Scale-Urdu (Saeed & Hanif, 2021).
6. To determine the divergent validity of newly developed Multidimensional distress Inventory for Polycystic ovary syndrome-Urdu by measuring correlation with Mental Health Inventory -38 -Urdu sub scale psychological wellbeing (Jabeen, Hanif & Tariq, 2018) and by factor loading method.

Steps to achieve the Objectives

To achieve the above mentioned objectives, study I was systematically undertaken in below mentioned steps:

Step I: Conceptualization of spiritual distress within Muslim population. This step was comprised of the development of protocol for Focused Group Discussion protocol on the

basis of detailed literature review for conducting focus group discussions for conceptualizing the concept of spiritual distress among Muslim population. After completion of FGD's transcription of focus group discussion data into written form and conduction of thematic analysis for identification of the major themes and subthemes related to spiritual distress within Muslim population and Conceptualize of Spiritual distress according to Muslims point of view.

Step II: Development of Multidimensional distress Inventory for Polycystic ovary syndrome-Urdu. This step was comprised of the development of the Interview guide for the in-depth interview to identify different types of distress within the psycho-socio-spiritual domains experience by the women suffering from PCOS. On the basis of thematic analysis of transcripts, item pool were generated, conducted a field study and obtained a final version of Multidimensional distress Inventory for Polycystic ovary syndrome-Urdu.

Step III. Establishing the psychometric properties of newly developed Multidimensional distress Inventory for Polycystic ovary syndrome-Urdu through reliability and validity analysis. In this phase the psychometric properties of newly developed Multidimensional distress Inventory for Polycystic ovary syndrome-Urdu were established through alpha reliability, correlation matrix, inter-item correlation and item-total correlation. The convergent validity of the newly developed inventory was established through the correlation by measuring its correlation with the Psychological Distress sub-scale of Mental Health Inventory-38-Urdu (Jabeen, Hanif & Tariq, 2018), Social Provision Scale-Urdu (Rizwan & Syed, 2010) and Spiritual Attachment Muslim Scale-Urdu (Saeed & Hanif, 2021). The divergent Validity of the newly developed Multidimensional distress Inventory for polycystic ovary syndrome-Urdu was established by measuring its correlation with the Mental Health Inventory -38 -Urdu sub scale psychological well-being (Jabeen, Hanif & Tariq, 2018) and by factor loading method.

Conceptualization of spiritual distress within Muslim population. In palliative care, the spiritual dimension is considered as an important component of care along with physical, psychological, and social context.There are philosophical differences between Muslim and non-Muslim approaches with reference to spirituality. In religions other than Islam, spirituality and religion are two separate constructs like in Christianity the spirituality has been found to be based on three factors; connectedness, transcendence and meaning of life whereas religious activities, holy rituals and interaction with other human beings comes under the construct of religion (Weathers & Coffey, 2016). On the other hand, according to Islamic philosophy and teachings, spirituality and religion are one.Without performing religious activities and duties no one can be spiritual and vice versa. Sitwat and Dasti (2014) propose that Islam spirituality is founded upon seven fundamental notions or components, belief, Islamic rituals and customs, moral conduct, self-discipline, duties and responsibilities and perception of divine presence/ sensation of profound connection with Allah. According to the above mentioned literature, there is a significant difference between Islam and other religions with in the concept of spirituality so the disturbance of in the spirituality domains will be different in Islam. Within the Muslim community, the concept of spiritual distress is not too much visible or explored so the Focused group discussion was designed to understand the spiritual distress within the Muslim population. The questions in the focused group were explorative in nature and also based on the existing knowledge.

Focus groups are defined as informal discussions among a chosen group of individuals centered on a certain subject. They can be employed to address concerns that were uncovered during cognitive interviews or utilized independently to develop ideas through group discussion. Compared to cognitive interviews, focus groups tend to be less planned and more open-ended, which can help elicit a wider range of responses.

The sample of 30 individuals taken from different academic diciplines (Islamic

studies, psychology, Chemistry, mass communication and PCOS women) were selected form twin cities, Rawalpindi and Islamabad. For the focused Group discussion 30 participants were placed into 5 groups and each group comprised of 6 individuals.

The members of focus groups were instructed about the aim and purposes of the research and focus group discussions. Before starting the discussions, the participants filled informed consent form and demographic information sheets. At the beginning of discussions, a brief definition of variables and participants elaborate and give their valuable input about various instances of the construct in their context. Participants were assured that the provided information was only for research purposes and would be kept confidential. After each focus group discussion session, refreshments were served to the participants with gratitude for their valuable time.

Ist focus group discussion was conducted with the 5 participants of students and teachers of Islamic studies, 2nd Focus Group discussion was conducted with PhD scholars of psychology, 3rd focused group was conducted with the participants related to the field of chemistry, 4th group was conducted with the participants related to the field of mass communication and 5th focused group was conducted with women suffering from PCOS. The purpose behind conducting the focused group discussion within the multiple groups was to obtain vast in-depth knowledge about spirituality and spiritual distress. The Focused group discussions came to an end after the saturation point of obtained knowledge.

The transcripts were analyzed by using a thematic analysis approach. Focused Group Discussion shows themes, definition of spirituality, spiritual distress, Causes of spiritual distress, consequences of spiritual distress (Psychological and social), and recovery of spiritual distress. According to the thematic analysis, Spiritual distress is defined as a state where human beings perceive a weak connection with Allah, loss meaning in life, feelings of despair and hopelessness, social withdrawal and unable to perform religious duties and

rituals.

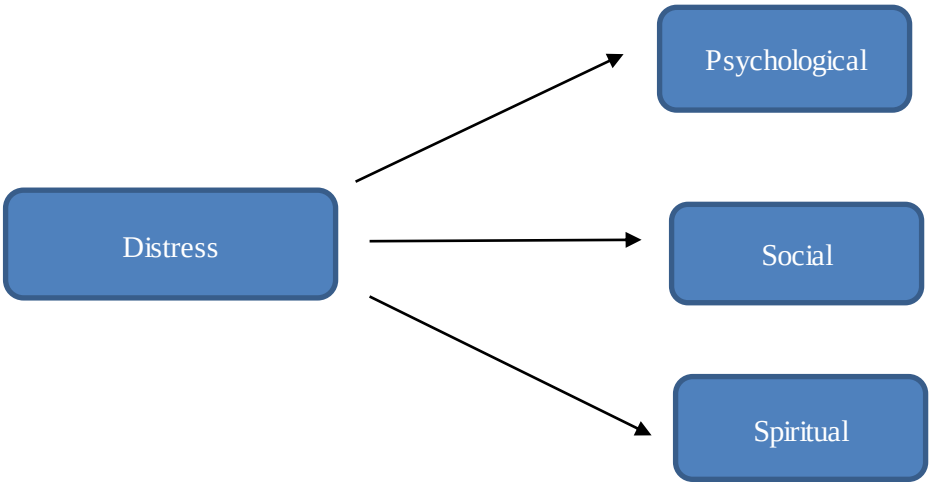
Step II: Development of Multidimensional distress Inventory for Polycystic ovary syndrome-Urdu.On the basis of detailed literature review, DSM-5 diagnostic criteria and results of focused group discussion, an interview guide were prepared for the in-depth interview. The items in the interview protocol were related to psycho-socio-spiritual domain. The nature of questions was semi-structured so the participants have the opportunity to explain their answer openly. The in-depth interviews were conducted with 15 women with the age range of 18-45 suffering from polycystic Ovary Syndrome (Diagnosed case) using purposive sampling.

The researcher analyzed transcribed data through thematic analysis (Corbin & Strauss, 2008; Thornberg & Charmaz, 2014); in which the researcher used a critical review of responses to develop appropriate coding, and then the themes were constructed from initial codes. The process of creating the themes underwent different levels. Qualitative interviews were recorded in written format by the researcher and research facilitator; due to social taboo, video or audio taping was not allowed by the participants; after each focus group, both the transcribed interviews were checked for accuracy. In the next step, the transcribed interviews were broadly divided into meaningful parts for a detailed analysis. Next, these meaningful parts were organized into dimensions (Rowan & Wulff, 2007).

Thematic analysis shows three major themes (Psychological, Social, and Spiritual) with sub-themes categories depressive symptoms, Anxiety symtoms, OCD symptoms, Eating disorder symptoms, Guilt and shame, Sexual dysfunctioning, Self-esteem, Interpersonal relationship, Intrapersonal relation, independency, environmental mastery, social anxiety, Loss Feeling of presence sense of connectedness with Allah, inability to search for Divinity, loss meaning in life, feeling of hopelessness and despair towards divine control, negative attribution of Allah's intent and no engagement in religious and social practices.

Figure 8

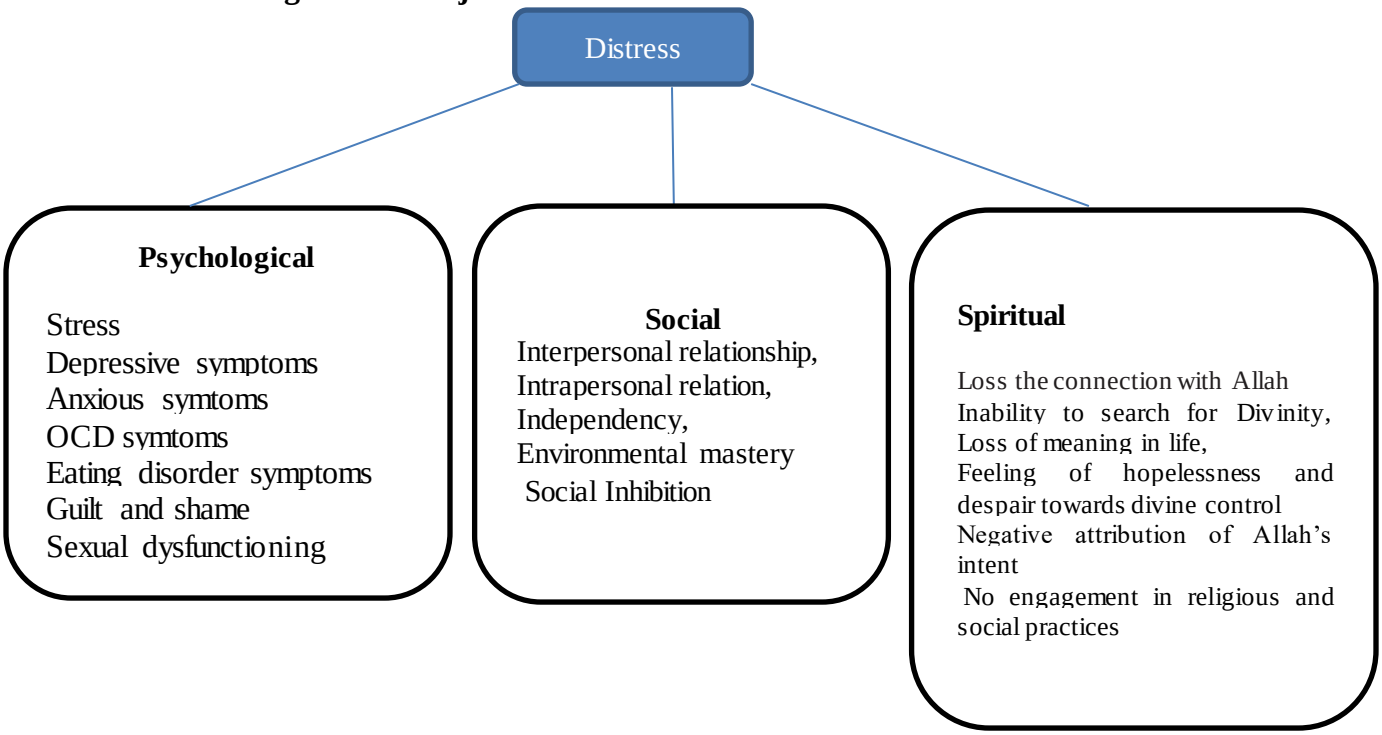
Major Categories of Distress



Note. Major Categories of Distress, Own work

Figure 9

Subcategories of Major themes of Dsitress



Note. Subcategories of Major themes of Dsitress. Own work

After the thematic analysis of in depth interviews and through literature review 126 items were generated for assessment of the Multidimensional distress among the women suffering from PCOS.

Rigorous testing must be applied to new instruments in order to ascertain their validity. The concept of validity pertains to the degree to which a given instrument accurately assesses its intended construct (Rainer, 2018). Due to this rationale, the Multidimensional Distress Inventory for Polycystic ovary syndrome-Urdu (MDDI-PCOS-U) underwent several iterations of development in order to guarantee that it was succinctly articulated, precisely defined, and encompassed themes that were significant to individuals with PCOS. Prior to content validity, a committee approach was devised to verify that items were produced in accordance with the specified constructs and using straightforward language.
Content validity, which is assessed through quantitative methods, evaluates the extent to which elements correspond to or accurately represent a particular domain (Cabrera-Nguyen, 2010).

Content validity

Various techniques exist for assessing the content validity. The CVI was computed for each individual item (I-CVI) as well as for the entire scale (S-CVI). The panel of experts for CVI was requested to assess the relevance of each scale item with regards to the underlying construct. A 4-point scale was employed to exclude a neutral point. The item rating continuum was divided into four points, with 1 representing not relevant, 2 representing somewhat relevant, 3 representing rather relevant, and 4 representing highly relevant. The I-CVI was calculated for each item by dividing the number of experts who rated it as 3 or 4 by the total number of experts. For instance, if an item is rated 3 or 4 by four out of five experts, its I-CVI is 0.80. It is recommended that the I-CVI should be 1.00 when there are five or less judges, and it should not be lower than 0.78 when there are six or more

judges. The S-CVI was calculated to ensure the content validity of the entire scale.

There are two methods to understand it: S-CVI (universal agreement) and S-CVI (average). The S-CVI (Universal agreement) measures the percentage of items on an instrument that received a rating of 3 or 4 from all experts on the panel. The S-CVI (Average) is a measure of the liberal interpretation of the Scale Validity Index. It is calculated by taking the average of the Individual-CVI values. The S-CVI (Average) prioritizes the average quality of the items rather than the average performance of the experts. For the purpose of reflecting content validity, it is advised that the minimum S-CVI should be 0.8, as suggested by Lynn (1986), Polit and Beck (2006), and Rubio, Berg Weger, Tebb, Lee, and Rauch (2003).

After Content Validity Index, Content validity ratio was measured.The Lawshe test calculates the Content Validity Ratio (CVR) to determine if an item is essential for running a construct inside a group of items. The experts are requested to specify whether an item is necessary for operating a construct in a set of items or not. To this end, they are requested to score each item from 1 to 3 with a three-degree range of "*not necessary, useful but not essential, essential*" respectively. Content validity ratio varies between 1 and -1. The higher score indicates further agreement of members of panel on the necessity of an item in an instrument. . The CVR formula is

$$CVR = \frac{n_e - N/2}{N/2}$$

Where: n_e equals the number of SMEs rating an item as "essential" and N equals the total number of SMEs providing ratings.

The CVR has a numerical range of -1 to 1, as stated by Lawshe in 1975. The high scores of CVR reflect a consensus among members on the essentiality of an item in the instrument (Gilbert & Prion, 2016). A good CVR signifies that a minimum of 50% of the panelists concur on the essentiality of the item for the construct. Schipper provided Lawshe

with the minimal crucial values for CVR. It was said that the critical value for the CVR exhibits a consistent increase from the lowest value of 0.29 (40 SMEs) to the lowest value of 0.78 (9 SMEs). The essential values thereafter decrease abruptly to a minimum of 0.75 (8 Subject Matter Experts). The value of minimum 0.99 CVR (7 SMEs) has reached its maximum limit. The cause of this oddity, whether it was a result of a miscalculation by Schipper or a typing error, remains uncertain (Wilson, Pan, & Schumsky, 2012). According to Schipper's table, the critical coefficient of variation ratio (CVR) for the items at a significance level of $\alpha = 5\%$ is 0.99, given that there are 6 panelists. Wilson et al. (2012), however, contended that significant CVR values for a small sample of SMEs indicate an extremely cautious approach to item inclusion for the construct.

The optimal number of specialists to evaluate an instrument ranges from 2 to 20 persons. Armstrong et al. (2005) recommend that a minimum of 5 individuals should assess the instrument in order to ensure adequate control of chance agreement. The determination of content validity involved the input of a panel of experts ($n = 9$), consisting of 7 psychologists and topic specialists (two psychometricians and 7 clinical psychologists). All experts were provided with a concise introduction and the goal of the Inventory. The scale was distributed to committee members for meticulous evaluation, and the experts provided their comments and made necessary revisions. The final version scale was produced by selecting the most suitable components. All items were maintained in the scale after a thorough study and examination of their cultural context. The 9 experts were invited to participate in the content validity study. The CVI-S for the entire tool was 0.92. Item CVI scores ranged from 0.28 to 1, and item CVR scores ranged from 0.33 to 1. 13 items with a low CVI score (<0.78) and low CVR score (<0.85) were removed from the tool and 113 were retain for further analysis.

Table 1

Content Validity Index (CVI), and Content Validity Ratio (CVR) for Items of Multidimensional distress Inventory for Polycystic ovary syndrome-Urdu that Remained in the Scale (N=9)

Item No	CVI	CVR	Item No	CVI	CVR
1	1	0.82	14	1	0.84
2	1	0.93	15	1	0.88
3	1	0.28	16	1	0.61
4	0.53	0.33	17	0.31	0.21
5	1	0.82	18	0.99	1
6	1	0.74	19	1	0.88
7	1	0.98	20	0.82	0.89
8	1	0.89	21	1	0.79
9	0.73	0.84	22	1	1
10	0.99	1	23	0.97	0.93
11	1	0.98	24	0.80	0.90
12	1	0.84	25	0.82	0.98
13	1	0.85	26	1	0.98
27	0.61	0.74	43	1	0.97
28	1	0.93	44	0.73	0.85
29	0.83	0.90	45	1	1
31	0.84	0.98	46	1	0.98
32	1	0.98	47	1	0.88

33	1	0.74	48	1	0.89
34	1	0.98	49	1	1
35	0.76	0.92	50	1	0.93
36	0.87	1	51	1	0.90
37	1	0.88	52	1	0.98
38	1	0.84	53	0.99	1
39	0.61	0.74	54	0.87	0.88
40	1	0.98	55	0.82	0.89
41	1	0.86	56	0.71	0.79
42	1	0.84	57	1	1
58	1	1	73	0.97	0.93
59	1	0.98	74	0.80	0.90
60	1	0.81	75	0.82	0.98
61	1	0.82	76	1	0.98
62	0.61	0.74	77	1	0.97
63	1	0.93	78	0.73	0.88
64	0.83	0.90	79	0.99	1
65	0.84	0.98	74	0.97	0.98
66	1	0.98	75	0.76	0.88
67	0.61	0.74	76	0.73	0.86
68	1	0.93	77	0.99	1
69	0.83	0.90	78	1	0.88
70	0.84	0.98	79	0.82	0.89
71	1	0.98	80	1	0.88
72	1	0.87	81	1	1

82	1	0.98	97	0.97	0.93
83	1	0.88	98	0.80	0.90
84	0.87	1	99	0.82	0.98
85	0.99	1	100	1	0.98
86	1	0.88	101	1	0.97
87	0.82	0.89	102	0.73	0.88
88	1	0.92	103	1	1
89	1	1	104	0.99	1
90	0.97	0.93	105	1	0.88
91	0.80	0.90	106	0.82	0.89
92	0.82	0.98	107	1	0.88
93	1	0.98	108	1	1
94	1	0.97	109	0.97	0.93
95	0.73	0.89	110	0.80	0.90
96	1	1	111	0.98	0.90
112	0.99	1	122	0.99	1
113	1	0.88	123	1	0.88
114	0.82	0.89	124	0.82	0.89
115	1	0.86	125	1	0.86
116	1	1	126	1	1
117	0.97	0.93	CVI-S	0.92	
118	0.80	0.90			
119	0.82	0.98			
120	1	0.98			
121	1	0.97			

Note. CVI= Content Validity Index, CVR= Content Validity Ratio, CVI-S= Content Validity Index- Sum

Table 1 show the content validity Index and content validity ratio of 126 items of Multidimensional distress Inventory for Polycystic ovary syndrome-Urdu (MDDI-PCOS-Urdu).

The scale was ready to administer along with its scoring key. Likert type scoring was used in scale consisting of five response categories. The response category were labeled and scored as 1=never 2=rarely, 3=seldom, 4=often, 5=always. The score ranges from 113 to 565. High score indicates high level of Multidimensional distress suffering from PCOS and low score indicates low level of Multidimensional distress.

The tryout study was conducted to investigate the language validation. 60 women (N=30 married, N=30 Unmarried) were initially selected to check the comprehension and wordings of the items. The sample was consisted on 60 females was suffering from PCOS. The women were dignosed by six month and were taking medication. Women that participated in try out phase had education level from Matric to PhD. Married and Unmarried women were also taken in the tryout study. The only exclusion area was females not suffering from PCOS or not taking any medication, less than 18 years and could not read Urdu language.

Permission was obtained from the administrative authorities of various government and private hospitals in Rawalpindi and Islamabad in order to conduct the data collection. In addition to providing the participants (women afflicted with PCOS) with a concise introduction and explanation of the research, informed consent was also obtained for their involvement in the study. All ethical standards were considered while conducting this research. Data was collected using a purposive sampling. After this, the data collection

procedure was started; written consent was taken from the participants, and they were also informed about the purpose of the research. The questionnaires were distributed among the participants. They were requested to read instructions carefully and respond to each item as correctly as possible. They were told about maintaining the confidentiality of their participation in the research; everything was explained in a clear manner, and if there was any ambiguity, participants were given detailed instructions.

Table 2

Cronbach Alpha Reliability for Multidimensional Distress Inventory for Polycystic Ovary syndrome-Urdu (N=60)

				Range			
Scale	K	M(SD)	α	Potential	Actual	Skewness	Kurtosis
MDDI-PCOS-U	113	304.40(14.14)	.78	113-565	286-389	.69	.58

Note. MDDI-PCOS-U= Multidimensional distress Inventory for Polycystic ovary syndrome-Urdu, α= reliability coefficient, M=Mean, SD= Standard Deviation, K= No of Items

Table 2 displays the psychometric properties of the variables examined in the study. The reliability analysis demonstrates that the Multidimensional distress Inventory for Polycystic ovary syndrome-Urdu has an acceptable reliability coefficient that is 0.78, indicating that the scale is reliable and suitable for usage with the research sample.

Determination of Internal Consistency & Reliability for Multidimensional distress Inventory for Polycystic ovary syndrome-Urdu (MDDI-PCOS-U). To assess the internal consistency of MDDI-PCOS-U, various statistical measures were used, including Cronbach alpha, split half reliability, item-total correlation, and inter-item correlation.

A purposive sample of 200 (N=100 married, N=100 unmarried) women afflicted with Polycystic Ovary Syndrome (PCOS), aged between 18 and 45 years, was selected for data collection from the private clinics and hospitals of the cities of Rawalpindi and Islamabad. The data was chosen via purposive sampling. The medical records were used to filter the data for PCOS.

The inclusion criteria specifically encompass women aged 18-45 diagnosed with Polycystic Ovary Syndrome. The women were diagnosed by six months and were on medication. Women that participated had education level from Matric to PhD. Married and Unmarried women were also included in the study. The exclusion area was females not suffering from PCOS or not taking any medication, were less than 18 years and could not read the Urdu language. Females under 18 years and not willing to respond to questions were excluded. The research did not include women with any physical disability. After obtaining excellent and acceptable findings for the Cronbach alpha reliability of the Multidimensional distress Inventory for Polycystic ovary syndrome-Urdu on a small sample, it was evaluated on a larger sample of 200 (N=100 married, N=100 unmarried) women diagnosed with PCOS. The Cronbach alpha coefficient was used to assess the internal consistency of the measurements, while exploratory factor analysis was employed to evaluate the construct validity.

Permission was obtained from the administrative authority of several hospitals in Rawalpindi and Islamabad (PIMS, Polyclinic, Bilal Hospital, and Rawal General & Dental Hospital) for data collection. The participants of the study, who were women afflicted with

PCOS, were provided with a concise overview and introduction to the research. All ethical standards were considered while conducting this research. Data was collected using purposive sampling. After this, the data collection procedure was started; written consent was taken from the participants, and they were also informed about the purpose of the research. The questionnaires were distributed among the participants. They were requested to read instructions carefully and respond to each item as correctly as possible. They were told about maintaining the confidentiality of their participation in the research; everything was explained clearly, and if there was any ambiguity, participants were given detailed instructions.

Table 3

Item-total correlation for Multidimensional 113-items Original Distress Inventory for Polycystic Ovary Syndrome-Urdu (N=200)

Item no	Correlation	Item no	Correlation
1	.23	58	-.17
2	.76***	59	.79***
3	.59***	60	.74***
4	.15	61	..65***
5	.73***	62	.59***
6	.62***	63	.87***
7	.68***	64	.30***
8	.07	65	.31***
9	.24	66	.58***
10	.54***	67	.70***
11	.15	68	.25
12	.26	69	-.35

13	.67***	70	-.32
14	.62***	71	.86***
15	.76***	72	.88***
16	.80***	73	.69***
17	.76***	74	.83***
18	.51***	75	.79***
19	.62***	76	.44***
20	.68***	77	.88***
21	.39***	78	.86***
22	-.11	79	-.53
23	.21	80	0.74***
24	.23	81	0.73***
25	-.06	82	.02
26	.56***	83	.19
27	.27	84	.79***
28	.25	85	.24
29	.58***	86	0.72***
30	.60***	87	-.24
31	.85***	88	-.25
32	.83***	89	-.19
33	.26	90	.80***
34	.25	91	.30***
35	.22	92	.28***
36	.82***	93	.65***
37	.41***	94	-.08

38	.56***	95	-.61
39	.79***	96	-.01
40	.81***	97	-.03
41	.60***	98	-.17
42	.64***	99	.67***
43	.84***	100	.66***
44	.79***	101	.73***
45	.87***	102	.76***
46	.52***	103	.78***
47	.37***	104	.12
48	.03	105	.24
49	.83***	106	.26
50	.79***	107	.57***
51	.78***	108	.10
52	.45***	109	.04
53	.79***	110	.25
54	-.32	111	.21
55	.54***	112	.27
56	.62***	113	.20
57	.62***		

Table 3 indicates that most of the items of MDDI-PCOS-U are significantly correlated with the total score of MDDI-PCOS-U, with the exception of item no.1,4,9,11,12, 22, 23, 24, 25, 27,28,33, 34, 35,48, 54,58, 69, 70,79, 82, 83, 85, 87, 88,89, 94, 95,96, 97, 98,104, 105, 106,108, 109, 110, 111, 112, 113. The forty items showed low correlation (<.30) so author

decided to discarded the forty items (1,4,9,11,12, 22, 23, 24, 25, 27,28,33, 34, 35,48, 54,, 58, , ,69, 70,79, 82, 83, 85, 87, 88,89, 94, 95,96, 97, 98,104, 105, 106,108, 109, 110, 111, 112, 113ere deleted from the scale. The remaining 73 items were shows good inter-item correlation. These remaining items have correlation above the 0.30 due to which the decision was made to retain these items.

Normality check for the 73 items. Normality check was conducted to identify the outliers in the data. Items had SD lower than 0.5 and greater than 1.5 were discarded (Field, 2005). Normality check is very important because wrong selection of the representative value of a data set and further calculated significance level using this representative value might give wrong interpretation.

Table 4

Standard Deviation of 73 items of Multidimensional distress Inventory for Polycystic ovary syndrome-Urdu (N=200)

Sr.No	Item no	SD	Sr.No	Item no	SD
1	2	1.43	15	21	1.62
2	3	1.44	16	26	1.54
3	5	1.48	17	29	1.41
4	6	1.43	18	30	1.32
5	7	1.32	19	31	1.35
6	10	1.42	20	32	1.23
7	13	1.42	21	36	1.42
8	14	1.31	22	37	1.57
9	15	1.36	23	38	1.33
10	16	1.42	24	39	1.32
11	17	1.32	25	40	1.33

12	18	1.54	26	41	1.32
13	19	1.33	27	42	1.22
14	20	1.22	28	43	1.41
29	44	1.33	53	73	1.65
30	45	1.47	54	74	1.31
31	46	1.62	55	75	1.45
32	47	1.54	56	76	1.66
33	49	1.33	57	77	1.36
34	50	1.26	58	78	1.56
35	51	1.43	59	80	1.43
36	52	1.61	60	81	1.44
37	53	1.46	61	84	1.32
38	55	1.72	62	86	1.33
39	56	1.58	63	90	1.41
40	57	1.52	64	91	1.54
41	59	1.58	65	92	1.56
42	60	1.32	67	93	1.42
43	61	1.22	68	99	1.58
44	62	0.87	69	100	1.61
45	63	1.24	70	101	1.43
46	64	1.46	71	102	1.62
47	65	1.33	72	103	1.55
48	66	1.24	73	107	1.56
49	67	1.33			
50	68	1.36			

51	71	1.43
52	72	1.33

The result of Table 4 elucidates that most of the items has SD between 0.5-1.5 except item 18,21,26,37,46,47,52,55,56,57,59,73,76,78,91,92,93,99,100,102,103 ,107. The standard deviations of these items were above 1.5 due to which decisions were made to discard 22 items. The remaining 51 items has the SD range between 0.5-1.5 due to which the decision were made to retain the 51 items (2,3,5,6,7,10,13,14,15,16,17,19,20,29,30,31,32,36,38,39,40,41,42,43,44,45,49,50,51,53,60,61 ,62,63,64,65,66,67,68,71,72,74,75,77,80,81,84,86,90,93,101).

Factorial Validity for Multidimensional distress Inventory for Polycystic ovary syndrome –Urdu (MDDI-PCOS-U) 51 item. To assess the dimensionality of the Multidimensional distress Inventory for Polycystic ovary syndrome-Urdu, it is necessary to do Principle Component Analysis. This involves assessing the level of normality of the data using standard deviation and correlation matrix. Items with a standard deviation below 0.5 and over 1.5 were excluded. In the correlation matrix, elements with correlations more than 0.8 and less than 0.3 were excluded due to their singularity and commonality.

The Principal Component Analysis was applied to a set of 51 items from the Multidimensional distress Inventory for Polycystic ovary syndrome-Urdu (MDDI-PCOS-U). Three components emerged with Eigen values over 1.0. However, while the 'Eigen value larger than 1.0 is not only the recommended procedure for determining the number of elements to retain (Reise, Waller, & Comrey, 2000), so the Scree Test (Cattell, 1978) was also used to examine the dimensionality of the matrix. The items for the scale were chosen based on their factor loading, with a criterion of loading values equal to or greater than a certain threshold (0.3-0.8). The direct oblimin rotation was employed to analyze the three-

factor solution. The Kaiser-Meyer-Olkin measure of adequacy was calculated to be .84, that is higher than suggested threshold of .60 for conducting factor analysis. This suggests that the data is suitable for factor analysis. The Bartlett's test of sphericity yielded a significant result (11151.47, p<.001). The probability is below 0.001, indicating that the matrix is not an identity matrix. KMO & Barlett's test facilitated the application of factor analysis to the data.

Table 5

KMO and Barlett test of Sphericity of Multidimensional distress Inventory for Polycystic ovary syndrome-Urdu (N=200)

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.84
Bartlett's Test of Sphericity	Approx. Chi-Square N Sig	11151.47 200 0.001

Kaiser-MeyerOlkin test of Sampling Adequacy (KMO) and Bartlett's Test of Sphericity. The results obtained from the two tests revealed that the factor model was appropriate

Table 6

Psychometric properties of Multidimensional distress Inventory for Polycystic ovary syndrome-Urdu with 51 items (N=200)

Scale	K	M(SD)	α	Potential	Actual	Skewness	Kurtosis
PSSDI (Original)	51	168.65(27.62)	.91	72-234	51-255	0.81	-0.79

Note: MDDI-PCOS= Multidimensional distress Inventory-Urdu for Polycystic ovary syndrome, U= Urdu, K= no of Items

Table 6 displays the psychometric properties of the Multidimensional distress Inventory for Polycystic ovary syndrome-Urdu. The reliability analysis demonstrates that the Multidimensional distress Inventory for Polycystic ovary syndrome-Urdu has a favorable reliability coefficient, indicating that the scale is reliable and suitable for usage with the research population.

Table 7

Item-total correlation for Multidimensional distress Inventory for Polycystic ovary syndrome-Urdu 51-Items (N=200)

Item No.	Item-Total Correlation	Item No.	Item-Total Correlation
Q2	.77***	Q32	.61***
Q3	.37***	Q36	.78***
Q5	.46***	Q38	.77***
Q6	.66***	Q39	.75***
Q7	.86***	Q40	.74***
Q10	.55***	Q41	.71***
Q13	.41***	Q42	.62***
Q14	.78***	Q43	.74***
Q15	.78***	Q44	.73***
Q16	.13***	Q45	.86***
Q17	.82***	Q49	.86***
Q19	.73***	Q50	.66***
Q20	.72***	Q51	.74***
Q29	.41***	Q53	.66***
Q30	.61***	Q60	.73***
Q31	.74***	Q61	.84***
Q32	.31***	Q62	.84***
Q36	.71***	Q63	.76***
Q38	.75***	Q64	.73***
Q39	.86***	Q65	.74***
Q40	.81***	Q66	.71***

Q32	.63***	Q86	.72***
Q36	.78***	Q90	.82***
Q38	.78***	Q93	54***
Q39	.52***	Q101	66***
Q40	.61***		

Note

***p<.001*

Table 7 shows that Multidimensional distress Inventory for Polycystic ovary syndrome - Urdu consisted of 51 elements after the elimination of some components. Table 7 displays a range of correlation coefficients from .41 to .86, indicating that the items are in agreement with the overall total score of MDDI-PCOS-U. This establishes the sample's scale's homogeneity and internal consistency (construct validity).

Table 8

Inter-item Correlation of Multidimensional distress Inventory for Polycystic ovary syndrome-Urdu 51-Items (N=200)

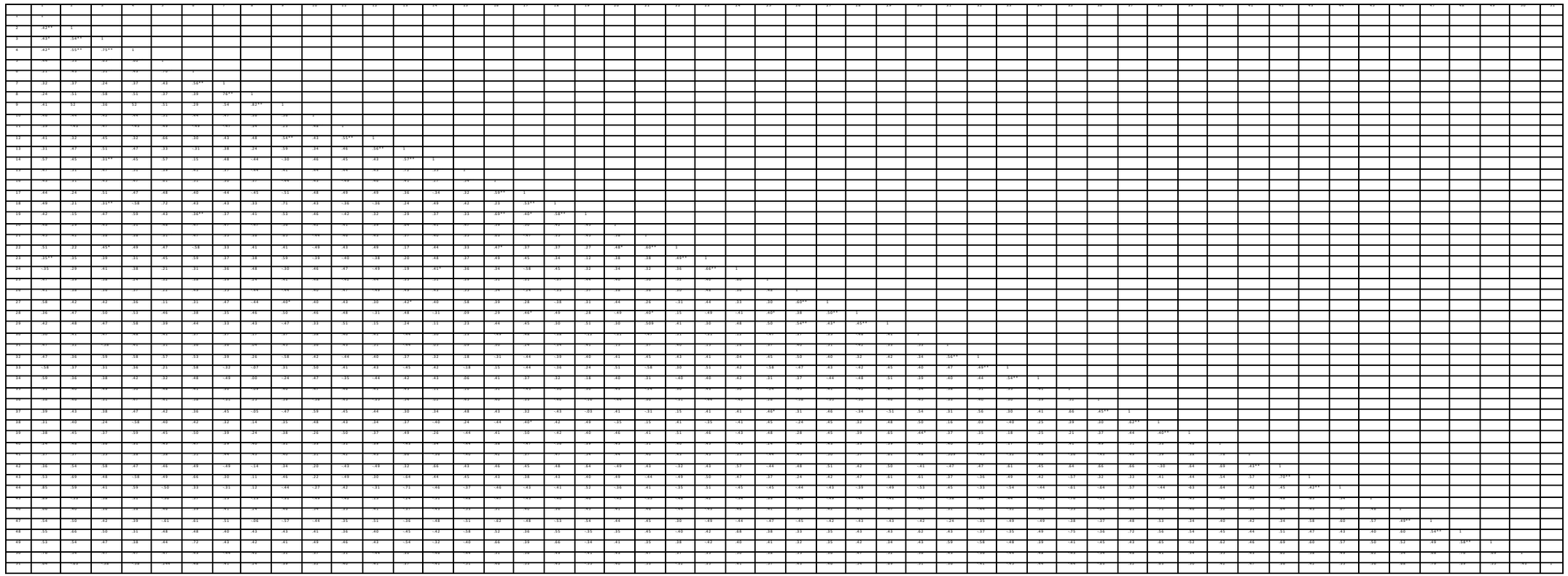


Table 8 indicates inter-item correlation indicates that most of the items correlated with each other at the level of .05 to .001.

Table 9

Eigen Values and Percentage Variances explained by three Factors for Multidimensional distress Inventory for Polycystic ovary syndrome-Urdu (MDDI-PCOS-U).

Factors	Eigen Values	% of Variance	Cumulative %
F1(Psychological distress)	13.848	27.153	27.153
F2(Spiritual distress)	10.900	21.373	48.526
F3(Social distress)	3.367	6.602	55.128

Table 9 shows that Factor 1 (Psychological distress) has an Eigen value of 13.84, which accounts for 27.15% of the total variance. This is the highest number among the three factors. Factor II (Spiritual Distress) has an Eigen value of 10.90, accounting for 21.37% of the total variation. Factor III (Social Distress) has an Eigen value of 3.36, explaining 6.60% of the total variance. According to the results, 55.12% of the variation is explained by the three components together.

Scree Plot

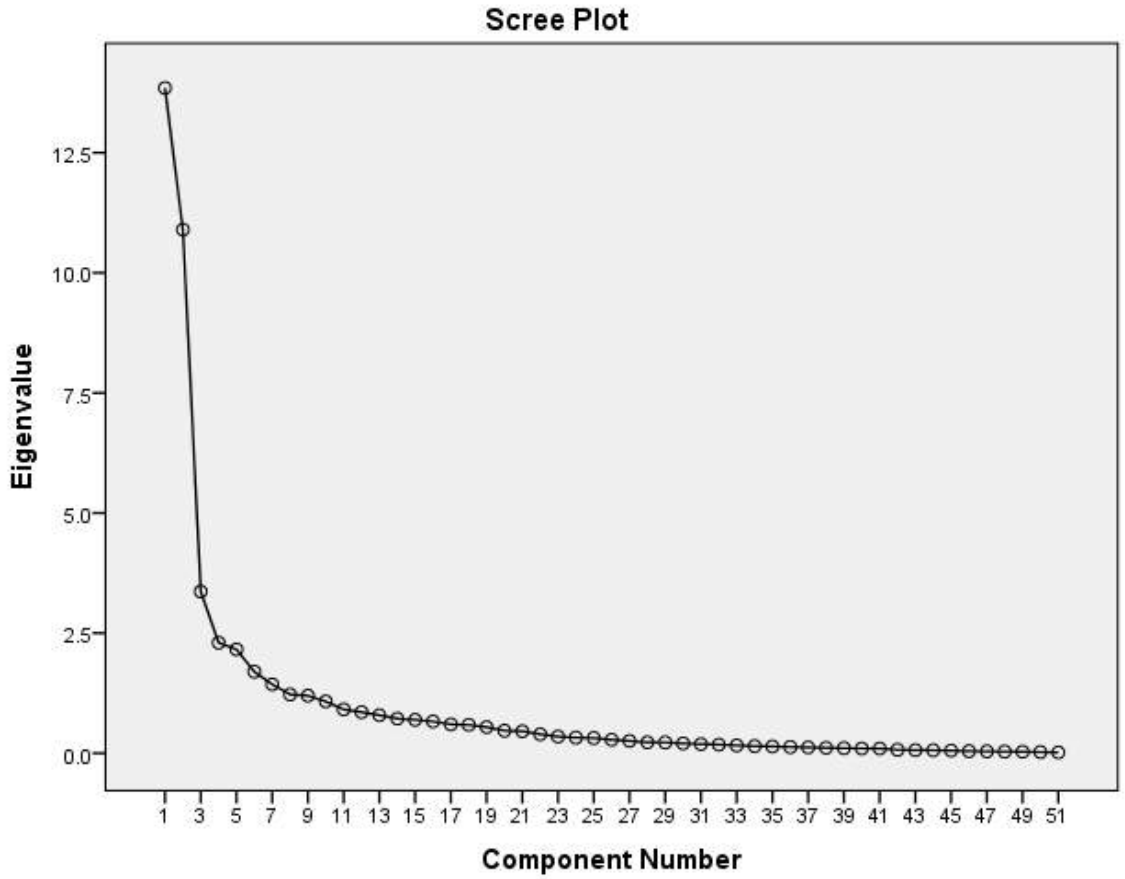


Figure 10. Scree plot

The result of scree plot indicated that after three points there is a steep curve and straight lines begin. According to the result three factors (Psychological, Social and Spirittual) are selected for the inventory.

Table 10

Factor Loadings for Exploratory Factor Analysis with Principal Component Analysis using Direct Oblimin Rotation for 51 items Multidimensional distress Inventory for Polycystic ovary syndrome-Urdu (MDDI-PCOS-U) (N=200)

Items No	F1	F2	F3
		Component	
Q2	0.21	0.32	0.54
Q3	0.11	0.24	0.39
Q5	0.23	0.41	0.53
Q6	0.28	0.18	0.50
Q7	0.13	0.32	0.56
Q10	0.23	0.83	0.10
Q13	0.22	0.38	0.59
Q14	0.28	-0.33	0.75
Q15	0.26	0.42	0.61
Q16	0.31	0.47	0.74
Q17	0.18	0.29	0.56
Q19	0.32	-0.40	0.54
Q20	0.31	-0.37	0.60
Q29	0.25	0.83	0.43
Q30	0.51	0.79	0.12
Q31	0.27	0.54	0.67
Q32	0.33	0.41	0.75
Q36	0.24	0.42	0.60
Q38	0.54	0.78	0.35

Q39	0.32	0.54	0.41
Q40	0.34	0.57	0.31
Q41	0.30	0.49	0.34
Q42	0.17	0.66	0.18
Q43	0.57	0.32	0.45
Q44	0.74	0.32	0.19
Q45	0.67	0.43	0.52
Q49	0.70	0.51	0.44
Q50	0.76	0.32	0.21
Q51	0.61	0.52	0.37
Q53	0.51	0.39	0.43
Q60	0.31	0.46	0.52
Q61	0.46	0.79	0.53
Q62	0.36	0.85	0.52
Q63	0.68	0.22	0.24
Q64	0.46	0.89	0.54
Q65	0.41	0.85	0.54
Q66	0.56	0.42	0.25
Q67	0.64	0.18	0.21
Q68	0.42	0.65	0.23
Q71	0.49	0.62	0.25
Q72	0.80	0.53	0.42
Q74	0.63	0.44	0.32
Q75	0.19	0.74	0.32
Q77	0.71	0.48	0.57

Q80	0.66	0.64	0.32
Q81	0.60	0.43	0.36
Q84	0.57	0.23	0.47
Q86	-0.46	0.37	0.45
Q90	0.49	-0.33	0.35
Q93	0.37	-0.40	0.54
Q101	0.48	-0.41	0.32

Table 10 indicates the factor solution of the 51 items selected for Multidimensional distress Inventory-Urdu for Polycystic ovary syndrome (MDDI) through principal component analysis via direct oblimin rotation Method. Table 10 indicates the 3 factors of Multidimensional distress Inventory for Polycystic ovary syndrome-Urdu (MDDI-PCOS-U). The Three factors were considered three sub-scales for the questionnaire. Factor 1 measures Psychological Distress among women Suffering from PCOS holding 19 items which are item no. 43,44,45,49,50,51,53,63,66,67,72,74,77,80,81,84,86,90,101. Factor 2 is related to Spiritual Distress comprising of 15 items which are 10,29,30,38,39,40,41,42,61,62,64,65,68,71,75. Factor 3 is related to Social Distress and it consists of 17 items which are Item No. 2,3, 5,6,7,13,14,15,16,17,19,20,31,32,36,60,93.

Introduction of Multidimensional distress Inventory for Polycystic ovary syndrome-Urdu (MDDI-PCOS-U)

Multidimensional distress Inventory for Polycystic ovary syndrome-Urdu (MDDI-PCOS-U) measured three dimensions, psychological, social and spiritual distress among women suffering from Polycystic Ovary syndrome. It has total 51 items. It has three Subscales spiritual, social and psychological Distress scales. Spiritual distress scale has 15 items measuring, loss of connection with Allah, search for Divinity, Loss of meaning in life,

feeling of hopelessness and despair towards divine control, negative attribution of Allah's intent, and engagement in religious and social practices. Social distress has 17 items measuring inter and intrapersonal relationship, environmental mastery, independency and social inhibition while Psychological Distress has 19 items measuring stress, depressive symptoms as well as the symptoms of anxiety, OCD, eating disorder, guilt and shame and sexual dysfunctioning. It has Likert type scoring system. The response category ranging from Always =5, Often=4, seldom =3, rarely=2 and Never=1. Out of the total 51 items, 16 items were reversed coded. The score on the scale range from 51 to 255. The score range of Psychological Distress is from 19 to 95, for Social Distress is from 17 to 85 and for Spiritual Distress it is from 15 to 75. High scores of the scale indicate high distress level in all domains and low score indicates low distress level. The Score range from 51-119 explain mild distress level, 120-187 describe moderate level of distress and 188-255 explains high distress level. The midpoint of the scale is 127. Reliability analysis (study I) indicated good alpha reliability of the developed inventory (α=.91) Item total correlation ranged between .59 to .85 that granted an additional support that MDDI-PCOS-U is a reliable measure. The Cronbach Alpha for the Subscale of MDDI-PCOS-U .85 for spiritual distress, 0.91 for Social distress and 0.87 for Social distress Scale.

Construct Validity (Convergent and Divergent validity). Construct validity is about how well a test measures the concept it was designed to evaluate (Bagozzi, 1993). Construct validity is primarily assessed using two methods: convergent validity and divergent validity.

For the construct validity the data was taken from 200 women (N=100 married, N=100 Unmarried) suffering from PCOS. The women were dignosed by six month and were taking medication. Women that participated in try out phase had education level from Matric to PhD. Married and Unmarried women were also taken in the tryout study. The only exclusion area was females not suffering from PCOS or not taking any medication, less than 18 years and could not read Urdu language.

Permission was obtained from the administrative authorities of various government and private hospitals in Rawalpindi and Islamabad in order to conduct the data collection. In addition to providing the participants (women afflicted with PCOS) with a concise introduction and explanation of the research, informed consent was also obtained for their involvement in the study. All ethical standards were considered while conducting this research. Data was collected using a purposive sampling. After this, the data collection procedure was started; written consent was taken from the participants, and they were also informed about the purpose of the research. The questionnaires were distributed among the participants. They were requested to read instructions carefully and respond to each item as correctly as possible. They were told about maintaining the confidentiality of their participation in the research; everything was explained in a clear manner, and if there was any ambiguity, participants were given detailed instructions. The study utilized a demographic data sheet that included characteristics such as age, education level, socioeconomic status, marital status, weight, BMI, family history of illness, maternal history of illness, medication usage, and irregular menstrual periods.

In order to evaluate the convergent validity of the recently developed Multidimentional distress inventory, its score was compared to three standard measures: the Spiritual Attachment Muslim Scale-Urdu (Saeed & Hanif, 2021), the Social Provision Scale-Urdu (Rizawan & Syed, 2010), and the Psychological distress Subscale of the Mental Health Inventory-38-Urdu (Jabeen, Hanif & Tariq, 2018).

The study utilized a demographic data sheet that included characteristics such as age, education level, socioeconomic status, marital status, weight, BMI, family history of illness, maternal history of illness, medication usage, and irregular menstrual periods.

The Urdu translation and validation of the Mental Health Inventory was conducted by Mussarat and colleagues in 2018. The Urdu version consists of 38 items. The assessment included two subscales: Psychological Distress, which consisted of 22 items, and Psychological Well-being, which consisted of 16 items. The Mental Health Inventory (MHI) was evaluated using a 6-point rating scale, with 1 representing "all of the time" and 6 representing "none of the time". The scores for the Psychological Distress subscale varied from 22 to 132, whereas for the Psychological Well-being subscale, they ranged from 16 to 96. The Psychological Distress subscale was subject to negative scoring, meaning that higher scores on the total Mental Health Inventory (MHI) indicated greater mental health. The MHI demonstrated satisfactory reliability and robust internal consistencies, with values ranging from .83 to .96 (Stead, Shanahan, & Neufeld, 2010).

Muslim Spiritual attachment Scale was originally developed by Miller in 2017 and it is translated and validated in Urdu language by Beena in 2021. The M-SAS comprises dimensions representing cognitive working models of self and God as an attachment figure, and attachment behaviors. It consisted of six items and had 5 Likert type scoring system, ranging from 5=always. The score range of this scale is 6-30. The high scores indicates high level of spiritual attachment and low score indicates low spiritual attachment. The reliability

of this scale is =0.87.

The Social Provisions Scale (Cutrona & Russell, 1987) is a 24-item survey that uses a 4-point Likert-type scale, with the highest scores indicating strongly agree and the lowest score indicating strongly disagree. In 2018, an Urdu translation was done by Rizwan & Syed. This is a reliable and valid scale that was created to evaluate perceived social support. The six provisions of social relationships are evaluated by this scale: opportunity for nurturance (providing assistance to others), reassurance of worth (recognition of one's competence), attachment (emotional closeness), social integration (a sense of belonging to a group of friends) and Guidance (it is the provision of advice or information). The scale's score range is from 24 to 96. A high score signifies substantial social support, whereas a low score indicates inadequate social support. Its alpha reliability is 0.83.

***Divergent validity of new developed Inventory*.** Divergent Validity of New developed Inventory was examined through cross-Loading Method. Discriminant validity is demonstrated when each item of a measurement exhibits a weak correlation with any other construct, excluding the ones with which it is conceptually linked, as stated by Gefen and Straub (2005). Cross-loadings involve the researcher scrutinizing the different items in order to discern those that exhibit substantial loadings on a single construct as well as those that do so on multiple constructs. Therefore, the establishment of discriminant validity at the item level necessitates that items belonging to the same construct exhibit a strong correlation, while items representing distinct constructs have an exceptionally weak correlation (Henseler et al., 2015).

In order to determine divergent validity of Multidimensional distress-Inventory Urdu and Mental health inventory -38 sub scale Psychological wellbeing-Urdu (Jabeen, Hanif & Tariq, 2018) was used.

Table 12

Psychometric properties/Cronbach Alpha Reliability for Overall Scale and Subscales of Multidimensional distress Inventory for Polycystic ovary syndrome-Urdu (MDDI-PCOS-U),Conner Davidson Resilience Scale -Urdu(CDRS-U), Mental Health Inventory-38-Urdu(MHI-U), Social Provision Scale-Urdu (SPS-U) and Muslim Spiritual Attachment Scale-Urdu (MSAS-U) (N=200)

Scale	K	M(SD)	α	Ranges		Skewness	Kurtosis
				Potential	Actual		
MDDI-PCOS	51	162.54(19.65)	.91	51-255	128-218	0.44	.87
PD	19	46.32(6.32)	.89	19-95	24-79	.87	.76
SD	17	43.61(10.55)	.87	17-85	30-71	-.51	.62
SiD	15	45.76(7.15)	.88	15-75	23-64	0.21	.64
CDRS	25	58.48(10.39)	.87	0-100	13-72	.260	0.53
MHI-38	38	112.21(7.41)	.90	38-228	51-152	0.13	-1.46
Psy D	22	64.35(14.35)	.74	22-132	25-98	-.30	0.47
Psy W	16	58.91(16.07)	.89	16-96	20-51	.12	0.66
SPS	24	60.58(15.77)	.87	24-96	26-61	0.23	0.13
MSAS	16	48.61(11.54)	.85	16-80	17-48	0.25	0.72

Note. MDDI-PCOS= Multidimensional distress Inventory for Polycystic ovary syndrome, PD= Psychological Distress, SD= Social Distress, SiD= Spiritual Distress, CDRS=Conner Davidson Resilience Scale, MHI-38= Mental Health Inventory-38, Psy D= Psychological Distress (Subscale of MHI-38), Psy W= Psychological Wellbeing (sub Scale of Mental

Health Inventory-38, SPS= Social Provision Scale, MSAS= Muslim Spiritual Attachment Scale. K=no of Items

Table 12 displays the Cronbach Alpha values for both the overall scale and the subscales of the recently created inventory and others study scales. The alpha reliability of the Multidimensional distress Inventory for polycystic ovary syndrome-Urdu (MDDI-PCOS-U) is 0.91 and reaibility of the subscales ranges from .74 to .88, indicating satisfactory levels of internal consistency. The reliability of Mental Health Inventry (MHI) is 0.90, for Social Provision Scale (SPS) is 0.87 and for Muslim Spiritual Attachment Scale (MSAS) is 0.85. Therefore, the scales and subscales demonstrate a high level of reliability for usage within the research population.

Table 13

Correlation Coefficients between Multidimensional distress Inventory for Polycystic ovary syndrome-Urdu, Mental Health Inventory-38-Urdu, Social Provision Scale-Urdu and Muslim Spiritual Attachment Scale-Urdu (n=200)

		1	2	3	4	5	6
1	SpD	-					
2	PD	.74***	-				
3	SD	.77***	.76***	-			
4	SPS	-.71***	-.77***	-.84***	-		
5	MSAS	-.85***	-.78***	-.89***	.87***	-	
6	PsyD	-.78***	-.84***	-.77***	.72***	.75***	-

Note. PD=Psychological distress; SD= social Distress; SpD= Spiritual Distress; SPS= Social Provisional scale, MSAS= Muslim Spiritual Attachment Scale, PsyD- Mental Health Inventory psychological distress Sub scale

***p<0.001

The table 13 indicates that both the Multidimensional distress Sub scale Psychological distress is highly correlated with the Psychological distress sub-scale of Mental Health Inventory r=-.78, p<.001. The result also elucidates Multidimensional distress-Urdu Sub-scale Social distress is highly correlated with the Social Provision scale-Urdu r=-.77, p<.001. The result also elucidates Multidimensional distress-Urdu Subscale Spiritual distress is highly correlated with the Muslim Spiritual Attachment Scale-Urdu r=-.85, p<.001. This indicates that the newly developed inventory Multidimensional distress-Urdu (PSSDI-Urdu) has good convergent validity.

Table 14

Correlation Coefficients between Multidimensional distress Inventory for Polycystic ovary syndrome-Urdu and Mental health inventory -38 sub scale Psychological well-being (N=200)

Scales	1	2
Multidimensional distress Inventory for Polycystic ovary syndrome -Urdu	-	-0.73***
Psychological wellbeing Subscale (Mental Health Inventory-38)-Urdu	-	-

Note.

******p<0.001***

Table 14 indicates that Multidimensional distress Inventory for Polycystic ovary syndrome-Urdu and Psychological wellbeing Subscale of Mental Health Inventory-38 -Urdu measure different constructs which indicates that the newly developed scale Multidimensional distress-Urdu has good divergent validity.

Table 15

Cross loading of Multidimensional distress Inventory for Polycystic ovary syndrome-Urdu and Mental health Inventory-38 sub Scale Psychological Wellbeing (N=200).

Item No	F1	F2	F3	F4
Q2	0.21	0.32	0.54	0.21
Q3	0.11	0.24	0.39	0.11
Q5	0.23	0.41	0.53	0.23

Q6	0.28	0.18	0.50	0.28
Q7	0.13	0.32	0.56	0.13
Q10	0.23	0.83	0.10	0.23
Q13	0.22	0.38	0.59	0.22
Q14	0.28	-0.33	0.75	0.28
Q15	0.26	0.42	0.61	0.26
Q16	0.31	0.47	0.74	0.31
Q17	0.18	0.29	0.56	0.18
Q19	0.32	-0.40	0.54	0.32
Q20	0.31	-0.37	0.60	0.31
Q29	0.25	0.83	0.43	0.25
Q30	0.51	0.79	0.12	0.51
Q31	0.27	0.54	0.67	0.27
Q32	0.33	0.41	0.75	0.33
Q36	0.24	0.42	0.60	0.24
Q38	0.54	0.78	0.35	0.54
Q39	0.32	0.54	0.41	0.32
Q40	0.34	0.57	0.31	0.34
Q41	0.30	0.49	0.34	0.30
Q42	0.17	0.66	0.18	0.17
Q43	0.57	0.32	0.45	0.57
Q44	0.74	0.32	0.19	0.74
Q45	0.67	0.43	0.52	0.67
Q49	0.70	0.51	0.44	0.70
Q50	0.76	0.32	0.21	0.76

Q51	0.61	0.52	0.37	0.61
Q53	0.51	0.39	0.43	0.51
Q60	0.31	0.46	0.52	0.31
Q61	0.46	0.79	0.53	0.46
Q62	0.36	0.85	0.52	0.36
Q63	0.68	0.22	0.24	0.68
Q64	0.46	0.89	0.54	0.46
Q65	0.41	0.85	0.54	0.41
Q66	0.56	0.42	0.25	0.56
Q67	0.64	0.18	0.21	0.64
Q68	0.42	0.65	0.23	0.42
Q71	0.49	0.62	0.25	0.49
Q72	0.80	0.53	0.42	0.80
Q74	0.63	0.44	0.32	0.63
Q75	0.19	0.74	0.32	0.19
Q77	0.71	0.48	0.57	0.71
Q80	0.66	0.64	0.32	0.66
Q81	0.60	0.43	0.36	0.60
Q84	0.57	0.23	0.47	0.57
Q86	-0.46	0.37	0.45	-0.46
Q90	0.49	-0.33	0.35	0.49
Q93	0.37	-0.40	0.54	0.37
Q101	0.48	-0.41	0.32	0.48
MH1	0.32	0.17	0.28	0.52
MH2	0.19	0.15	0.22	0.52

MH3	0.12	0.31	0.34	0.79
MH4	0.13	0.24	0.15	0.48
MH5	0.24	0.31	0.25	0.81
MH6	0.11	0.26	0.27	0.77
MH7	0.24	0.21	0.31	0.76
MH8	0.22	0.25	0.31	0.72
MH9	0.41	0.22	0.23	0.82
MH10	0.25	0.42	0.45	0.79
MH11	0.26	0.31	0.41	0.77
MH12	0.11	0.26	0.25	0.69
MH13	0.21	0.32	0.41	0.70
MH14	0.33	0.12	0.21	0.72
MH15	0.34	0.26	0.31	0.77
MH16	0.22	0.16	0.48	0.75

The result of table 15 Indicated that Metal Health Inventory Subscale Psychological wellbeing items are loaded only factor 3 that indicated its Multidimensional distress Inventory for Polycystic ovary syndrome-Urdu has a good Divergent validity with Psychological wellbeing Sub Scale of MHI 38-Urdu.

Discussion

The primary goal of the present phase was to create a reliable and precise assessment instrument for evaluating Multidimensional Distress in women suffering from Polycystic Ovary Syndrome. To determine the Multidimensional Distress Inventory-Urdu for Polycystic Ovary Syndrome's applicability and comprehension, a tryout study was conducted. A cohort of 60 participants, ranging in age from 18 to 45, was enlisted for the study. The newly developed inventory demonstrated a significant level of reliability with a Cronbach alpha coefficient of 0.91.

The reliability of the Multidimensional Distress Inventory for Polycystic Ovary Syndrome-Urdu (MDDI-PCOS-U), a recently developed scale consisting of 51 items, was assessed by examining its internal consistency and factorial/construct validity. Using a sample size of 200 women diagnosed with Polycystic Ovary Syndrome (PCOS), 100 of them were married, and 100 were unmarried. The size of the sample is an essential variable in factor analysis. Research has demonstrated varying opinions and general guidelines. Yong and Pearce (2013) state that a minimum of 300 cases is required for factor analysis. Mundfrom et al. (2005) state that multiple studies indicate that a sample size of 100 or greater is suitable for factor analysis. Sapnas and Zeller (2005) determined that a sample size of 50 is adequate for factor analysis. According to these studies, factor analysis on the 51 questions the participants answered on the study's sample size 200 is appropriate. The sample size also fulfills the supplementary criterion mentioned in the literature, which states that it should be four times more than the number of items in the self-report measure (Field, 2005).

Consequently, a factor analysis was made. The Kaiser-Meyer-Oklin (KMO) measure was used to evaluate the adequacy of the respondent data for factor analysis. The estimated value of 0.84 indicates that the data is suitable for this EFA analysis. In addition, the Bartlett test of sphericity was performed, yielding a chi-square value of 11151.03 with 1257 degrees

of freedom and a p-value below 0.000. The statistical tests were conducted to assess the suitability of the data for factor analysis. The KMO measure of the sample adequacy index runs from 0 to 1, and a value of 0.50 is regarded as appropriate for conducting factor analysis. According to Hair et al. (2005) and Tabachnick (2007), Bartlett's Test of Sphericity is deemed statistically significant ($p<.001$), affirming the suitability of factor analysis and showing a strong correlation among the variables. The current study's findings indicate a positive correlation between the variables and the conditions of the KMO and Barlett's tests, which are appropriate for conducting exploratory factor analysis.

A factorial analysis was performed on the 51-item Multidimensional Distress Inventory for Polycystic Ovary Syndrome-Urdu (MDDI-PCOS-U) to assess and determine the inventory structure. Consequently, the 51 items underwent principal components analysis to determine the underlying factor structure of the study's concept. Factor analysis is frequently utilized in the domains of psychology, psychometry, and education (Hogarty et al., 2005) as a favored method for analyzing surveys and measurements (Byrant, Yarnold, & Michelson, 1999). Factor analysis is an essential technique in test preparation as it helps in choosing items for the final version of the scale (Thurstone, 1947). This process aims to decompose many objects into smaller, uniform elements known as factors. Furthermore, it offers evidence of the accuracy and appropriateness of the self-report measure (Thompson, 2004). The inter-item correlation and total-item correlation analysis revealed that all 51 items of the Multidimensional Distress Inventory for Polycystic Ovary Syndrome-Urdu (MDDI-PCOS-U) displayed positive connections with each other and the overall scale score. This finding supports using the direct oblimin rotation method (Costello, Anna & Osborne, 2005). The criterion used to choose objects for factor loading in EFA. The recommendation is to have a loading of 30 or more, which is considered significant. The items that exhibited loadings on two or more criteria concurrently necessitated using an appropriate criterion.

These elements were selected based on either their high loading value or their theoretical connection to the relevant component. The Exploratory Factor Analysis (EFA) yielded a cumulative percentage of variance of 55.12% and identified three components with eigenvalues exceeding 1. Every element had a substantial quantity of objects. Factor I consists of items corresponding to the hypothesized dimension of Psychological Distress. This factor accounts for a total variation of 27.15%. Factor 1 measures Psychological Distress among women Suffering from PCOS, holding 19 items, which are item no. 43,44,45,49,50,51,53,63,66,67,72,74,77,80,81,84,86,90,101. Factor 2 is related to spiritual distress, comprising 15 items: 10,29,30,38,39,40,41,42,61,62,64,65,68,71,75. Factor 3 is related to Social Distress, and it consists of 17 items, which are Item No. 2,3, 5,6,7,13,14,15,16,17,19,20,31,32,36,60,93. The analysis of the items loaded on three factors revealed a pattern that aligns with the Psycho-socio-spiritual model (Sulmasy, 2002).
The analysis of the items loaded on three factors, as conducted by exploratory factor analysis (EFA), indicated that the content of factor loadings on Factor 1 accurately represents items associated with Psychological which have 19 items. The reliability of this subscale was measured using Cronbach's alpha coefficient and that is 0.89. The factor loadings on Factor 2 revealed that the items' content accurately reflected the Spiritual Distress experienced by women with PCOS. A total of 15 components were included in this factor, and this subscale has a reliability coefficient of Cronbach alpha of 0.88. Factor loadings on Factor 3 showed that the content of the items represented social distress. The Cronbach alpha reliability of this subscale was 0.86.

Therefore, the overall findings demonstrate that Multidimensional distress is a measure of Multidimensional suffering among women with PCOS that consists of three dimensions and has internal consistency. Furthermore, based on respondent data from the

Pakistani population, the results indicate that the scale is sensitive to most of the fundamental dimensions of the construct proposed by Sulmasy (2002).

Phase I of the research was also designed to assess the psychometric properties of the instruments utilized in the study. Multidimensional distress was found to be a highly reliable (α=0.91) psychological instrument for assessing multidimensional distress in women with PCOS, according to the study's findings. According to the findings, multidimensional distress and all of its subscales demonstrated a high degree of internal consistency. The reliability of the psychological distress subscale was found to be high for the sample data (α=0.89). The social distress scale (α=0.86) and spiritual distress scale (α=0.88) further validated the sample data's high reliability. Consequently, the high Alpha reliability values for the study scales indicate that each scale is appropriate and dependable for measuring the study variables. Construct validity is how well a test measures the concept it was designed to evaluate (Bagozzi, 1993). Construct validity is primarily assessed using two methods: convergent validity and divergent validity. Divergent validity is the extent to which measures of different concepts are distinct or can be easily discriminated (Campbell & Fiske, 1959). Convergent validity is defined as how closely a test is related to other tests that measure the same or similar constructs and denotes the degree to which several attempts to assess similar constructs are consistent.

The convergent validity of the Multidimensional Distress Inventory for Polycystic Ovary Syndrome-Urdu was measured by including another established scale of Mental Health Inventory -38-Urdu (Psychological Distress sub-scale, Social Provision Scale, and Muslim Spiritual Attachment Scale-Urdu. The finding reveals that both the Multidimensional distress Inventory for Polycystic ovary syndrome-Urdu Subscale Psychological distress is highly correlated with the Psychological distress subscale of the Mental Health Inventory $r=-.78$, $p<.001$. The result also elucidates that the Multidimensional Distress Inventory for

Polycystic Ovary Syndrome-Urdu Subscale Social Distress is highly correlated with the Provisional Social scale r=-.77, p<.001. The result also elucidates the Multidimensional Distress Inventory for Polycystic Ovary Syndrome-Urdu Subscale Spiritual Distress is highly correlated with the Muslim Spiritual Attachment Scale r=-.85, p<.001. This indicates that the newly developed inventory Multidimensional distress-Urdu (PSSDI-U) has good convergent validity.

In order to determine the divergent validity of the Multidimensional Distress Inventory for Polycystic Ovary syndrome-Urdu and Mental Health Inventory -38-Urdu sub-scale Psychological Distress was used, Multidimensional Distress Inventory for Polycystic ovary syndrome-Urdu and Psychological Wellbeing Subscale of Mental Health Inventory-38-Urdu measure different constructs which indicates that the newly developed Multidimensional distress Inventory for Polycystic ovary syndrome-Urdu has good divergent validity. Thus, it is concluded that the new inventory for the assessment of Multidimensional Distress Inventory for Polycystic ovary syndrome-Urdu has good convergent and divergent validity.

PHASE II: PILOT STUDY

Phase II comprised of pilot testing in which pretesting was conducted on small number of participants (N=60) by administering the newly developed Multidimensional distress Inventory for Polycystic ovary syndrome-Urdu (developed during phase I of the present study) and Conner Davidson Resilience Scale –Urdu.

Objectives

Phase II of the present research study was conducted to fulfill the following objectives:

1. To determine the reliability coefficient of Multidimensional distress Inventory for Polycystic ovary syndrome- Urdu and Conner Davidson Resilience Scale -Urdu (CDRS) (Sarwer et al., 2021).
2. To measure the relationship between Multidimensional distress Inventory for Polycystic ovary syndrome- Urdu and Conner Davidson Resilience Scale -Urdu (CDRS) (Sarwer et al., 2021).

Hypotheses

1. There is a negative relationship between psycho-socio-spiritual distress and resilience Scale-Urdu (CDRS-U) (sarwer et al., 2021) among women suffering from Poly cystic Ovary Syndrome.

Sample

A sample of 60 women (N=30, married N=30 Unmarried) suffering form Polycystic Ovary syndrome were screened for the present study via medical reports. The age range was 18-45 years.

Inclusion Criteria. The inclusion criteria for the study comprised of the respondents who had medically diagnosed with polycystic ovary syndrome from past six months and were on proper medication. Respondents included equal number of married (N=30) and unmarried women (N=30). The participants involved in the study resided in urban areas. They had to

read the written statements on the Urdu-language questionnaires and fill them out. The minimum criteria of educational level were matric degree so women could understand the language and comprehension of the items better. The data was collected from different clinic and hospitals of the Islamabad and Rawalpindi (PIMS, Polyclinic, Bilal Hospita and Rawal General & Dental Hospital).

Exclusion Criteria. The exclusion criteria for the study comprised of the respondents who were not taking the medication of the PCOS or who were having other medical condition inspite of PCOS and were diagnosed and taking therapies for any psychological illness. Respondents who had physical disability were also not the part of this research.

Instruments

Following instruments were used in Phase II:

Demographic Data Sheet. A demographic data sheet consisting of variables like age, education, socioeconomic status, marital status, weight, BMI, history of illness in family, history of illness in mother, taking medicine and hairs on body, hair fall and irregular periods used in the study.

Multidimensional distress Inventory for Polycystic ovary syndrome-Urdu (MDDI-PCOS-U). Multidimensional distress Inventory for Polycystic ovary syndrome-Urdu (MDDI-PCOS-U) developed in phase I of the present study by the researcher. It has three Subscales i.e., psychological distress, social distress and Spiritual distress. Psychological Distress has 19 items; Social distress has 17 items while Spiritual Distress has 15 items. MDDI-PCOS-U total items are 51 with 5 Likert type scoring system. The response category ranging from Always =5, Often=4, seldom =3, rarely=2 and Never=1. Out of the total 51 items, 16 items were reversed coded. The score on the scale ranges from 51 to 255. The score range of Psychological Distress is from 19 to 95, for Social Distress is from 17 to 85 and for Spiritual Distress it is from 15 to 75. High scores of the scale indicate high distress level in all domains

and low score indicates low distress level. The Score range from 61-119 explain milddistress level, 120-187 describe moderate level of distress and 188-255 explains high distress level. The midpoint of the scale is 127. Reliability analysis (Phase I) established internally consistent measure of the scale. The Cronbach alpha for the 51-item inventory is .91. Item total correlation ranged between .86 to .89 that granted an additional support that MDDI-PCOS-U is a reliable measure. The Cronbach Alpha for the Subscale of MDDI-PCOS-U.88 for spiritual distress, 0.86 for Social distress and 0.89 for psychological distress sub-scale.

Connor–Davidson Resilience Scale-Urdu. It is developed by Conner and Davidson in 2003 and it has 25 items and it is translated in Urdu by Sarwer and colleagues in 2021. The CD-RISC yields total scores ranging from 0 to 100, with items being assessed on a 5-point Likert scale that ranges from 0, indicating 'rarely true', to 4, indicating 'true nearly all of the time'. The CD-RISC has a 5-factor structure: Factor 1 measures personal competence, high standards, and tenacity. Factor 2 measures trust in one's instincts, tolerance of negative effect, and the perceived benefit of stress. Factor 3 reflects positive attitiudes towards change and secure relationships. Factors 4 and 5 relate to control and spiritual influences, respectively. Higher resilience is correlated with higher scores. The scale's reliability coefficient is 0.87 (Conner, 2003).

Procedure

The second phase of the study utilized a demographic data sheet, the newly constructed Multidimensional distress Inventory-Urdu for Polycystic ovary syndrome-Urdu and Conner Davidson Resilience Scale for data collection. 60 participants were selected for the current study based on their medical records. After screening a total of 60 participants (n= 30 Married and n=30 Unmarried), participated in the study. The age bracket spanned from 18 to 45 years. The data was collected from gynae clinic and hospitals of Rawalpindi and Islamabad (PIMS, Polyclinic, Bilal Hospita and Rawal General & Dental Hospital). All

ethical standards were considered while conducting this research. Data was collected using a purposive sampling. After this, the data collection procedure was started; written consent was taken from the participants, and they were also informed about the purpose of the research. The questionnaires were distributed among the participants. They were requested to read instructions carefully and respond to each item as correctly as possible. They were told about maintaining the confidentiality of their participation in the research; everything was explained in a clear manner, and if there was any ambiguity, participants were given detailed instructions.

Table 16

Cronbach Alpha Reliability for Overall Scale and Subscales of Multidimensional distress Inventory for Polycystic ovary syndrome-Urdu (MDDI-PCOS-U),Conner Davidson Resilience Scale -Urdu(CDRS-U) (Sarwer et al., 2021), Mental Health Inventory-38-Urdu(MHI-U, Social Provision Scale-Urdu (SPS-U) and Muslim Spiritual Attachment Scale-Urdu (MSAS-U) (N=60).

Scale	K	M(SD)	α	Ranges		Skewness	Kurtosis
				Potential	Actual		
MDDI-PCOS	51	128.65(21.74)	.90	51-255	128-218	0.53	.93
PD	19	45.55(7.58)	.88	19-95	24-78	.63	-.52
SD	17	45.97(9.39)	.85	17-85	30-71	.51	0.56
SiD	15	38.40(8.15)	.86	15-75	23-64	0.21	-1.78
CDRS	25	58.48(10.39)	.87	0-100	13-54	.260	0.53

Note. MDDI= Multidimensional distress Inventory-Urdu for Polycystic ovary syndrome, PD= Psychological Distress, SD= Social Distress, SiD= Spiritual Distress, CDRS-U=Conner

Davidson Resilience Scale-Urdu, k=No of Items, α=alpha reliability coefficient

Table 16 reports the psychometric properties of newly developed inventory, its subscales and other study scale, Conner Davidson Resilience Scale-Urdu. The reliability analysis indicated that all scales and subscales have good reliability values.

Table 17

The correlation matrix between Multidimensional distress and resilience among women suffering from PCOS (N=60)

	Variables	1	2
1	MDDI-PCOS-U	-	-0.81***
2	CDRS-U	-	-

Note. MDDI- Multidimensional distress-Urdu, CDSR= Conner Davidson Resilience Scale-Urdu

***p<0.001

The result of Table 17 indicated that Multidimensional distress is negatively correlated with resilience among women with PCOS.

Discussion

The objective of Phase II of the study was to assess the psychometric qualities of the study instruments. A *pilot study* is a preliminary investigation conducted to validate research protocols, data collection instruments, sample recruitment strategies, and other pertinent research techniques before conducting a large scale study (Lancaster et al., 2004). A pilot study is a critical phase in any research endeavor as it serves to detect possible issues and shortcomings in the research instruments and protocol before they are fully implemented during the main study (Kraemer, Mintz, Noda, Tinklenberg & Yesavage, 2006).

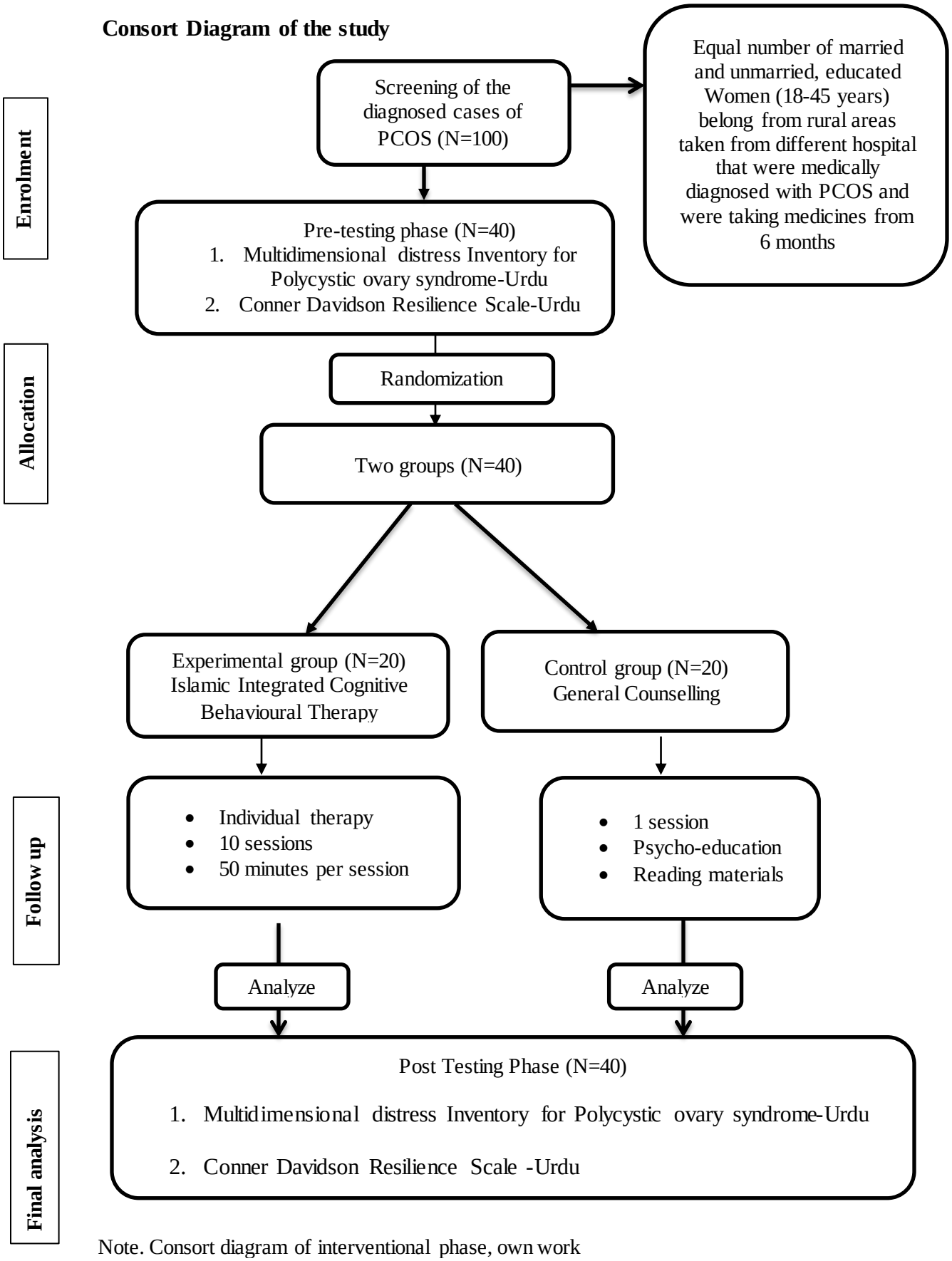
In order to ascertain the psychometric properties of the recently developed Multidimensional distress Inventory-Urdu for Polycystic ovary syndrome-Urdu and Conner Davidson Resilience Scale-Urdu, a pilot study was undertaken for the current investigation. The sample consisted of 60 women aged 18-45 years suffering from PCOS [married (n=30) and unmarried (n=30)]. The education level of selected sample was matric to PhD and for the data collection, private and government hospitals and clinics were approached.

As demonstrated by the study's results, the Multidimensional Distress Instrument can be relied upon to assess the degree of multidimensional distress among women with PCOS. The results indicate that the Multidimensional distress scale and its subscales exhibited high internal consistency. According to the sample data, the psychological distress subscale had a high degree of reliability (α=0.88). On the basis of the sample data, both the social distress scale (α=0.85) and the spiritual distress scale (α=0.86) exhibited a commendable degree of reliability. The study scales' alpha reliability values indicated a high degree of dependability, indicating that each scale is acceptable and reliable for measuring the study variables. The Study also illustrated that multidimensional distress and Resilience have a negative correlation (r=-0.81) with each other.

The Cronbach's alpha coefficient was computed for each variable that was assessed in the pilot study and will be maintained in the primary investigation. The reliability of the scales, as determined by Cronbach's alpha, was satisfactory for their use in the pilot study. As a result, the main inquiry was deliberately designed to collect data employing all accessible research measures with the purpose of testing hypotheses.

Figure 11

Consort Diagram of the study



Note. Consort diagram of interventional phase, own work

PHASE III. MAIN STUDY

The study used pretest-post test expiremental expirmental design to investigate the effectiveness of Islamic Integrated Cognitive Behavioral Therapy (IICBT) for Multidimensional distress (Psychological, Social and Spiritual) and Resilience among women suffering from Polycystic Ovary Syndrome. Furthermore, the effect of age, marital status, working status and socio-ecnomic status on multidimensional distress and resilience among women suffering from polycystic ovary syndrome was also explored.

Sample

In the study, a purposive sampling approach was employed to select a cohort of 100 women, carefully chosen from various institutions across Rawalpindi and Islamabad. This selection spanned multiple types of facilities, including hospitals, clinics, and educational institutions, ensuring a diverse representation of the population. The sample included 50 married women and 50 unmarried women, all within the age range of 16 to 45 years. This age bracket was chosen to capture a broad spectrum of experiences and responses related to the conditions being studied.

To qualify for inclusion in the study, participants were required to meet specific criteria based on their scores from two key psychological assessments. The first assessment, the Multidimensional Distress Inventory for PCOS, measures the level of distress experienced by individuals with Polycystic Ovary Syndrome (PCOS). For this study, participants needed to have a moderated distress score ranging between 120 and 187. This range indicates a moderate level of distress, suggesting that the participants were experiencing significant, though not extreme, distress related to their condition.

The second assessment used was the Conner Davidson Resilience Scale – Urdu,

which evaluates an individual's resilience. For inclusion in the study, participants were required to score below 25 on this scale. A low score reflects lower levels of resilience, indicating that the participants might struggle with coping mechanisms and adaptive responses to stress or adversity.

After the initial selection of 100 women based on these criteria, a subset of 40 divided into two distinct groups, each consisting of 20 women. The purpose of dividing the sample was to evaluate the impact of a specific intervention.

The first group, known as the experimental group, was exposed to the Islamic Integrated Cognitive Behavioral Therapy was intended to target the distress related to PCOS and enhance resilience among the participants.

The second group, the control group, did not receive the intervention, they were psychoeducate by the therapist and reading metirials were provided to the control group. The control group continued with their usual routines without any additional support or changes, allowing researchers to isolate the effects of the intervention and assess its effectiveness accurately.

By comparing the outcomes of the experimental group with those of the control group, the study aimed to determine whether the intervention had a significant impact on reducing distress and improving resilience. This comparison helps in understanding the efficacy of the intervention in addressing the specific needs of women with moderate distress from PCOS and low resilience, ultimately contributing valuable insights into effective strategies for managing these issues.

Inclusion Criteria. Both married and unmarried females with the age range of 18-45 years diagnosed with PCOS from past six months and on proper medications were included in this study. Educated women (matric to PhD) and married and unmarried women suffering from polycystic ovary syndrome were aslo included in this study. 40 women with moderate

level of distress and resiliences were selected on the base of pre-definded criteria.

In the context of a therapeutic study on Polycystic Ovary Syndrome (PCOS) using Islamic Integrated Cognitive Behavioral Therapy (IICBT), selecting participants for the therapy group based on a moderate score on the respective scales was a strategic decision aimed at ensuring the study's effectiveness and relevance.

Participants were selected for the therapy group if they had moderate scores (120-187) on psycho-socio-spiritual distress scale and less than 25 resilinece scale among women with PCOS. This moderate score range was chosen for several reasons, frstly, individuals with moderate scores are often experiencing significant symptoms and distress but are not in the most severe category. This makes them ideal candidates for intervention, as they stand to benefit from therapeutic approaches that address both their physical and psychological challenges. For those in the moderate range, therapy can potentially help manage symptoms effectively and improve quality of life, offering a meaningful impact without the complications of severe cases where additional medical management might be required.

Secondly, including participants with moderate scores allows for a clearer evaluation of the therapy's effectiveness. In research, it's crucial to assess how well the intervention works across a spectrum of severity. By focusing on those with moderate symptoms, researchers can gauge how well the IICBT approach alleviates symptoms and supports mental well-being in a population that represents a common and significant portion of individuals with PCOS.

Selecting participants based on moderate scores also helps in managing the study's logistical and practical aspects. It ensures that the therapy group is composed of individuals whose needs align with the intervention's focus, thereby enhancing the likelihood of successful outcomes and facilitating the research process. This approach allows for more targeted and relevant interventions, which can be crucial for assessing the therapy's impact

accurately.

Exclusion Criteria. Women who were not educated and not willing to respond to questions were excluded. Women who were not taking the medication of the PCOS taking medication more than 6 month and taking medication for infertility treatment were not include in this study. The present study excluded fertile women and those with children to enhance the study's internal validity. The decision to limit the study population to a specific subgroup is influenced by several key factors related to the nature of psychological interventions, the goals of the research, and considerations of participant well-being.

Islamic Integrated Cognitive Behavioral Therapy is psychological interventions for PCOS often aim to address issues such as stress, anxiety, and depression, which are prevalent among women with the condition. By focusing on a specific population, such as those who are not currently fertile or do not have children, researchers can more accurately assess the effectiveness of these interventions on the intended psychological outcomes.

Fertility status and parenting responsibilities can significantly influence a woman's psychological experience and responses to treatment. Women who are actively trying to conceive or who are managing the demands of parenting might have different psychological stressors and coping mechanisms compared to those who are not in these situations. For example, the emotional and psychological challenges associated with infertility or the stress of parenting could overshadow the effects of the psychological intervention being studied. By excluding these groups, researchers aim to create a more controlled environment where the impact of the intervention on psychological well-being can be more clearly isolated and evaluated.

Additionally, psychological interventions often require participants to engage in regular sessions and possibly adhere to specific practices or exercises. Women who are pregnant or have young children might face practical difficulties in fully participating in the

study, such as finding time for therapy sessions or managing the logistics of adhering to intervention protocols. By excluding these participants, researchers reduce the risk of non-compliance and ensure that all participants can engage fully with the intervention, leading to more reliable and valid results.

Another factor was the baseline psychological state of participants. Women with children or those who are fertile might have different baseline levels of stress or mental health issues compared to those without children. These differences could affect how they respond to psychological interventions, potentially confounding the study results. By focusing on a more homogenous group, researchers aim to minimize these confounding variables and obtain clearer insights into the effectiveness of the intervention for managing PCOS-related psychological symptoms.

Secondly, this study also excludes the women who have been on medication for more than six months. This decision is typically made to maintain the integrity of the study's results and ensure that the findings are as accurate and reliable as possible. Excluding women on long-term medication can be crucial for several reasons, including controlling for potential confounding variables, ensuring participant safety, and achieving clearer outcomes related to the psychological intervention being studied.

One of the primary reasons for this exclusion is to control for the effects of long-term medication on the psychological and physiological state of participants. PCOS is a complex condition often managed with a variety of medications, such as hormonal treatments, insulin sensitizers, or antidepressants. Women who have been on these medications for extended periods might experience different psychological or physical states compared to those who have recently started treatment or are not on medication. These long-term medications could influence mood, stress levels, or overall psychological well-being, potentially confounding the results of the psychological intervention being tested. By excluding women on medication

for more than six months, researchers aim to reduce this variability and focus on participants whose baseline psychological state is less influenced by long-term pharmacological treatments.

Another consideration is that long-term medication regimens might impact how participants respond to psychological interventions. For example, medications that affect neurotransmitter levels or hormonal balances could alter the effectiveness of therapeutic approaches designed to manage stress, anxiety, or depression. If a psychological intervention aims to address symptoms like anxiety or depression, the pre-existing effects of long-term medication could either mask or amplify the intervention's impact, complicating the interpretation of the results. By excluding those on long-term medication, researchers can better isolate the effects of the psychological intervention and ensure that any observed changes are more directly attributable to the intervention itself rather than interactions with ongoing medication.

The study also excluded the women with other medical condition other than PCOS and psychological problems or they were taking therapy for any psychopathology. Women who had physical disability were also not the part of this research.

Operational Definition

Psychological distress. Psychological distress is largely defined as a state of emotional suffering characterized by symptoms of depression (e.g., lost interest; sadness; hopelessness) and anxiety (restlessness; feeling tense) (Mirowsky & Ross, 2002). For the preset study psychological distress has been operationally defined in terms of the scores of the participants on subscale of psychological distress of the newly developed, Multidimensional distress Inventory-Urdu for Polycystic ovary syndrome-Urdu.

Social distress, Social distress can be broadly defined as a situation which threatens one's relationships, esteem, or sense of belonging within a dyad, group, or larger social

context (Dickerson & Kemeny, 2004). For the preset study psychological distress has been operationally defined in terms of the scores of the participants on subscale of social distress of the newly developed, Multidimensional distress Inventory-Urdu for Polycystic ovary syndrome-Urdu.

Spiritual distress. Spiritual distress is defines as a state where human being perceive weak connection with Allah, loss meaning in life, feeling of despair and hopelessness, social withdrawal and unable to perform religious duties and rituals. For the preset study spiritual distress has been operationally defined in terms of the scores of the participants on subscale of psychological distress of the newly developed, Multidimensional distress Inventory-Urdu for Polycystic ovary syndrome-Urdu.

Resilience. Resilience is defined as the developable capabilities to rebound or bounce back from tragedy, frustration and failure or even positive events (Morgan, 2015) and it hasl been operationally defined as the score of participants on urdu translated version of Connor–Davidson Resilience Scale-Urdu (Sarwer et al., 2021).

Instrument

Demographic Data Sheet. A demographic data sheet consisting of variables like age, education, socioeconomic status, marital status, weight, BMI, history of illness in family, history of illness in mother, taking medicine and hairs on body, hair fall and irregular periods used in the study.

Multidimensional distress Inventory for Polycystic ovary syndrome-Urdu (MDDI-PCOS-U). Multidimensional distress Inventory for Polycystic ovary syndrome-Urdu (MDDI-PCOS-U) measured three dimensions, psychological, social and spiritual distress among women suffering from Polycystic Ovary syndrome. It has total 51 items. It has three Subscales spiritual, social and psychological Distress scales. Spiritual distress scale has 15 items measuring, loss of connection with Allah, search for Divinity, Loss of meaning in life,

feeling of hopelessness and despair towards divine control, negative attribution of Allah's intent, and engagement in religious and social practices. Social distress has 17 items measuring inter and intrapersonal relationship, environmental mastery, independency and social inhibition while Psychological Distress has 19 items measuring stress, depressive symptoms as well as the symptoms of anxiety, OCD, eating disorder, guilt and shame and sexual dysfunctioning. It has Likert type scoring system. The response category ranging from Always =5, Often=4, seldom =3, rarely=2 and Never=1. Out of the total 51 items, 16 items were reversed coded. The score on the scale range from 51 to 255. The score range of Psychological Distress is from 19 to 95, for Social Distress is from 17 to 85 and for Spiritual Distress it is from 15 to 75. High scores of the scale indicate high distress level in all domains and low score indicates low distress level. The Score range from 61-119 explain mild distress level, 120-187 describe moderate level of distress and 188-255 explains high distress level. The midpoint of the scale is 127. Reliability analysis (study I) indicated good alpha reliability of the developed inventory (α=.91) Item total correlation ranged between .59 to .85 that granted an additional support that MDDI-PCOS-U is a reliable measure. The Cronbach Alpha for the Subscale of PSSDI .85 for spiritual distress, 0.91 for Social distress and 0.87 for Social distress Scale.

Connor–Davidson Resilience Scale-Urdu. It is developed by Conner and Davidson in 2003 and it has 25 items and it is translated in Urdu by Sarwer and colleagues in 2021. It has Likert type scoring scale that ranges from 0, indicating 'rarely true', to 4, indicating 'true nearly all of the time'. The CD-RISC has a 5-factor structure: Factor 1 measures personal competence, high standards, and tenacity. Factor 2 measures trust in one's instincts, tolerance of negative effect, and the perceived benefit of stress. Factor 3 reflects positive attitiudes towards change and secures relationships. Factors 4 and 5 relate to control and spiritual influences, respectively. Higher resilience are correlated with higher scores. The scale's

reliability coefficient is 0.87 (Conner, 2003). Recent studies have focused on evaluating the psychometric properties of the CD-RISC Urdu version to ensure it is a valid and reliable measure of resilience among Urdu-speaking populations. The validation process typically involves assessing the scale's reliability (e.g., internal consistency and test-retest reliability) and validity (e.g., construct validity and criterion validity).

A study by Ghaffar (2023) demonstrated that the Urdu version of the CD-RISC exhibits strong internal consistency, with Cronbach's alpha coefficients indicating reliable measurements of resilience. This study also confirmed the scale's test-retest reliability, suggesting that the CD-RISC Urdu provides stable and consistent results over time.

Hussain and Karim (2022) conducted research on the construct validity of the CD-RISC Urdu version by correlating it with other established measures of psychological well-being and stress. The findings showed that the CD-RISC Urdu correlates well with related constructs, supporting its validity in measuring resilience in a culturally appropriate manner.

Factor analysis studies have been conducted to examine the factor structure of the Urdu version of the CD-RISC. These studies have confirmed that the scale retains its original factor structure in the Urdu adaptation, which includes dimensions such as personal competence, tolerance of negative affect, and control. This suggests that the scale's theoretical framework is applicable across different linguistic and cultural contexts.

The validation process also involved assessing the cultural relevance of the CD-RISC Urdu. Researchers like Khan et al. (2024) highlighted that the scale's items are relevant and understandable in the Urdu-speaking context, reflecting resilience factors that are pertinent to the local population. This cultural sensitivity ensures that the scale accurately captures resilience as experienced by Urdu speakers.

Ethical considerations

At first, approval was taken from the ethical review board IIUI and then, the

researcher approached the participants who visited the OPD department of different private and government institutes to address their problems. Initially, an authority letter was obtained by the parent department which confirmed the institutional affiliation of the researcher. The researcher personally provided a brief introduction regarding the importance, implications, and objectives of the study. The participants were ensured about their privacy and confidentially that their personal information will only be used for academic purposes and it will remain confidential and will never be disclosed at any stage. Written and verbal informed consent was taken from the participants so that they participate voluntarily in the research. Participants were able to leave the research at any time without getting permission from the researcher and penalty. After taking the written informed consent, they were given brief instructions to complete the scales and to provide the information on the demographic information sheet. The researcher remained physically present and vigilant during the completion of the scales. Their queries were resolved appropriately and answered their questions. After the completion of the scales, the researcher scanned the questionnaires to see if any question was left unanswered. In case, if any questions were left blank, the researcher requested the participant to provide the information in the respective section of the questionnaire. The participants were debriefed regarding stressful situations after completing the questionnaire.

Procedure

The main study was consisted of three phases. Screening phase (Pre-testing), Intervention phase and post-intervention phase (Post-testing).

***Screening phase* (Pre-testing)**. Brief information and introduction was given to the 100 participants [married (n=50) and unmarried (n=50)] of the study (women suffering from PCOS) about research, and their consent was also obtained for participation in study. The screening phase aimed to identify and screen the 40 [married (n=20) and unmarried (n=20)] females who were diagnosed with PCOS and had a moderate level of psycho-socio-spiritual

distress and low level of resilience. The sample of 40 were divided into two group, experimental (N=20) 100 [married (n=10) and unmarried (n=10)] and control (N=20) 100 [married (n=10) and unmarried (n=10)]. The questionnaires were given to the participants. The participants were instructed to carefully read the instructions and provide accurate replies to each item. They were also guaranteed that their responses would be kept confidential.

Intervention Phase. During Intervention phase both experimental group and treatment group were provided different type of intervention. Islamic integrated Cognitive Behavioral Therpy was given to the experimental group while reading material was given to the control group.

Islamic Integrated Cognitive Behavioral Therapy to the experimental group. Islamic Integrated Cognitive Behavioral Therapy (Zuraida et al., 2018) is a modified version of Religiously Integrated Cognitive Behavioral Therapy (Pearce et al., 2015) (Sunni version) based on GhaZali Model.Islamic Integrated CBT, from an Islamic perspective, involves using the teachings of the Qur'an and Hadiths to help clients change their thoughts and behaviors. Al Qur'an mentioned about the trials and tribulations repeatedly and to those who persevere, God would grant the believers spiritual guidance. The IICBT has 10 sessions, and time of each session is 50 minutes. The therapy sessions were conducted on an individual basis.

Islamic Integrated Cognitive Behavior Therapy (IICBT) represents a unique synthesis of traditional Cognitive Behavior Therapy (CBT) and Islamic principles, designed to offer a culturally and spiritually relevant therapeutic approach. To fully understand the cohesiveness between IICBT and its sessions, it is essential to explore how this integration functions in practice, ensuring that both psychological techniques and spiritual beliefs are seamlessly woven into the therapeutic process.

At its core, Cognitive Behavior Therapy (CBT) is a widely accepted psychological treatment approach that focuses on altering dysfunctional thought patterns and behaviors to improve emotional well-being. CBT operates on the premise that cognitive distortions—such as overgeneralization, catastrophizing, and black-and-white thinking—significantly impact emotions and behaviors. By identifying and challenging these distorted thoughts, individuals can develop healthier cognitive patterns and more adaptive behaviors. Key elements of CBT include cognitive restructuring, behavioral activation, and the development of coping strategies.

Islamic principles, derived from the Quran and Hadith, offer a rich framework for understanding human behavior, ethics, and spirituality. Core concepts such as Tawakkul (trust in God), Sabr (patience), and Shukr (gratitude) form the foundation of Islamic teachings on personal conduct and resilience. These principles emphasize the importance of faith, perseverance, and appreciation, which can provide profound support for mental health and well-being.

The integration of CBT with Islamic principles—creating IICBT—involves adapting traditional CBT strategies to align with Islamic values. This approach ensures that therapeutic practices resonate with the client's religious beliefs and practices, providing a holistic framework that addresses both psychological and spiritual needs. The cohesiveness of IICBT is evident in its application across various therapeutic sessions, where Islamic teachings and CBT techniques are interwoven to create a comprehensive treatment plan.

In the initial assessment phase of IICBT, therapists gather information about the client's mental health status, cognitive patterns, and behavioral issues while also exploring their Islamic values and spiritual beliefs. This assessment is critical for setting therapeutic goals that address both psychological symptoms and spiritual well-being. For instance, if a

client is experiencing anxiety, the therapist will not only assess their cognitive distortions and avoidance behaviors but will also consider how Islamic teachings on trust in God and reliance on divine wisdom might influence their coping mechanisms and outlook on their struggles.

During the cognitive restructuring phase of IICBT, therapists work with clients to identify and challenge negative thought patterns. In traditional CBT, this process involves questioning and modifying distorted thoughts. In IICBT, this process is enriched by integrating Islamic teachings. For example, when addressing thoughts of inadequacy or failure, therapists might use Quranic verses and Hadith that emphasize the inherent value of every individual and the concept of God's mercy. Such spiritual guidance helps clients reframe their thoughts in a manner consistent with their faith, providing both psychological and spiritual reinforcement.

Behavioral activation is another core component of CBT, aimed at encouraging clients to engage in positive activities that counteract avoidance behaviors and enhance mood. In IICBT, this principle is applied through the inclusion of Islamic practices. For instance, clients might be encouraged to increase their engagement in religious activities such as prayer, charity, and community involvement. These activities align with therapeutic goals by fostering a sense of purpose, connection, and spiritual fulfillment, which can significantly enhance emotional well-being and motivation.

Coping strategies in CBT are designed to help clients manage stress and adversity effectively. IICBT integrates Islamic concepts of resilience and patience to enrich these strategies. Clients may be guided to practice Sabr (patience) during challenging times, drawing strength from the belief that difficulties are part of God's plan and that enduring them with patience is a form of spiritual growth. Additionally, exercises in Shukr (gratitude)

based on Quranic teachings help clients shift their focus from problems to the blessings in their lives, fostering a more positive and balanced perspective.

Mindfulness techniques, a popular component of CBT, focus on increasing awareness of the present moment and reducing rumination. In IICBT, this is complemented by Islamic practices of reflection (Tafakkur) and remembrance (Dhikr). Dhikr, or the remembrance of God, involves reciting specific phrases and prayers to calm the mind and strengthen spiritual connection. This practice helps clients achieve a state of mindfulness that is both psychologically and spiritually enriching.

Relapse prevention is an important aspect of CBT, involving the identification of triggers and the development of strategies to maintain progress. In IICBT, this phase incorporates faith-based strategies to support ongoing recovery. Clients are encouraged to seek spiritual support through prayer, community involvement, and continued engagement with religious practices. Establishing these practices as part of their daily routine helps reinforce therapeutic gains and provides a strong foundation for managing future challenges.

One of the primary strengths of IICBT is its respect for Islamic beliefs and practices. Therapists trained in IICBT are sensitive to the cultural and religious context of their clients, ensuring that interventions are aligned with their values and traditions. This respect fosters a therapeutic alliance built on trust and mutual understanding, which is crucial for effective therapy. By framing therapy within the context of seeking help from God and using professional support as a means of fulfilling religious obligations, IICBT helps reduce stigma associated with mental health issues and encourages individuals to seek the support they need. The integration of Islamic principles into CBT also promotes a sense of holistic well-being. By addressing both psychological and spiritual aspects of mental health, IICBT offers a comprehensive approach that aligns with clients' values and beliefs. This alignment

enhances client engagement and compliance with therapy, as clients are more likely to be motivated and committed when they see therapy as consistent with their faith.

In summary, the cohesiveness between Islamic Integrated Cognitive Behavior Therapy (IICBT) and its sessions lies in the seamless integration of cognitive-behavioral techniques with Islamic principles. This integration ensures that therapeutic practices are both psychologically effective and spiritually meaningful, offering a holistic approach to mental health that respects and utilizes Islamic teachings. The dual focus on psychological and spiritual well-being enhances client engagement and fosters a comprehensive framework for addressing mental health challenges. As IICBT continues to evolve, ongoing research and refinement will further highlight its effectiveness and contribute to its growth as a valuable therapeutic approach.

Limitations for Non-Muslims and Those with Low Spiritual Engagement

Lack of Religious Resonance: For non-Muslims or individuals with low spiritual engagement, the Islamic aspects of IICBT might not resonate. Therapy often relies on religious beliefs and practices to facilitate healing and personal growth. Non-Muslims or those with limited religious engagement might find it challenging to relate to or benefit from these components. For instance, concepts like tawakkul or reliance on God might be unfamiliar or irrelevant to someone who does not share the same religious framework.

***Cultural Sensitivity*:** Effective therapy often requires cultural sensitivity. IICBT is deeply rooted in Islamic culture and spirituality. Non-Muslims might not fully appreciate or relate to the cultural nuances and religious references embedded in the therapy. This misalignment can lead to misunderstandings or discomfort, potentially undermining the therapeutic alliance and effectiveness.

Believe on Tawheed: In Islamic contexts, Tawheed, which refers to the oneness of Allah and the fundamental concept of monotheism in Islam, is a core belief. For Muslims, this principle is central to their faith and worldview. When it comes to Islamic integrated cognitive behavioral therapy (II-CBT), which combines traditional cognitive behavioral therapy techniques with Islamic teachings and values, the adherence to Tawheed can be an important aspect. The therapy aims to align psychological practices with Islamic principles, offering a culturally and religiously sensitive approach. If someone does not believe in Tawheed, it might impact their receptiveness to II-CBT, as the therapy often integrates Islamic teachings into its practice. For individuals who do not hold these beliefs, alternative therapeutic approaches that do not require adherence to specific religious principles might be more suitable. It's important for anyone seeking therapy to find an approach that aligns with their personal beliefs and values to ensure the therapy is effective and supportive for their needs. The IIUM Religiosity among Muslim modified (Urdu- Translated version by the researcher) used for the measure religiosity among Muslims, based on an Islamic perspective that centres on the bodily action or human activity (islam), the mind or understanding of God (iman), and the spirit or actualisation of virtue and goodness (ihsan). The translated version shows good psychometric properties.

Attiriation in Therapy

Attrition in therapy, often referred to as client dropout or termination, is a significant concern in the field of mental health.

Criteria for Dropout

Number of Sessions Attended: One common criterion for dropout is the number of therapy sessions attended. Clients who attend fewer than a predetermined number of sessions, often less than half of the scheduled sessions, are typically classified as having dropped out.

This measure helps to standardize dropout rates across different studies and settings. For instance, Cuijpers et al. (2016) use a threshold of attending fewer than 50% of the sessions as a marker for dropout in their meta-analysis of psychotherapies for major depression.

Early Termination: Dropout is often defined by early termination of therapy, which means discontinuing treatment before the planned end date or before achieving significant therapeutic milestones. This definition includes clients who withdraw from therapy due to dissatisfaction, lack of progress, or external factors. Early termination is a crucial criterion as it reflects the client's decision to stop therapy prematurely, which can impact overall treatment outcomes (Wierzbicki & Pekarik, 1993).

Client Self-Report: Self-reported reasons for discontinuation are another important criterion. Clients may provide feedback on why they chose to leave therapy through exit interviews or follow-up surveys. This self-reporting can reveal valuable insights into the reasons behind dropout, such as dissatisfaction with the therapeutic process, personal issues, or external constraints (Kazdin, 2008). This method provides a direct perspective from the clients themselves, offering a more nuanced understanding of dropout.

Therapist-Reported Termination: Therapists also play a role in identifying dropout. Dropout can be reported based on therapists' observations, such as clients missing several consecutive sessions without prior notice or failing to re-engage after multiple attempts. This criterion helps to capture cases where clients may not officially communicate their decision to drop out but still cease participating in therapy (Owen et al., 2014).

Managing the attriation

In interventional studies, the fear of participant dropout is a well-recognized concern that can significantly impact the study's integrity and outcomes. Dropout refers to the situation where participants withdraw from the study before its completion, which can

introduce various challenges to the research process. Understanding and addressing dropout is crucial because it affects the reliability and validity of the study results.

One primary concern is that dropout can lead to missing data, which complicates the analysis and interpretation of results. Missing data can skew the findings and reduce the statistical power of the study, making it harder to detect true effects of the intervention (Schneider et al., 2021). This is particularly problematic in clinical trials and other interventional studies where precise data is essential for evaluating the efficacy and safety of new treatments or interventions.

Dropout can also introduce bias if the reasons for withdrawal are related to the study outcomes. For example, if participants drop out because of adverse effects related to the intervention, the remaining participants may not be representative of the overall target population. This type of bias, known as attrition bias, can distort the study's conclusions and limit the generalizability of the findings (Graham et al., 2019). Researchers must, therefore, implement strategies to minimize dropout and handle it appropriately when it occurs.

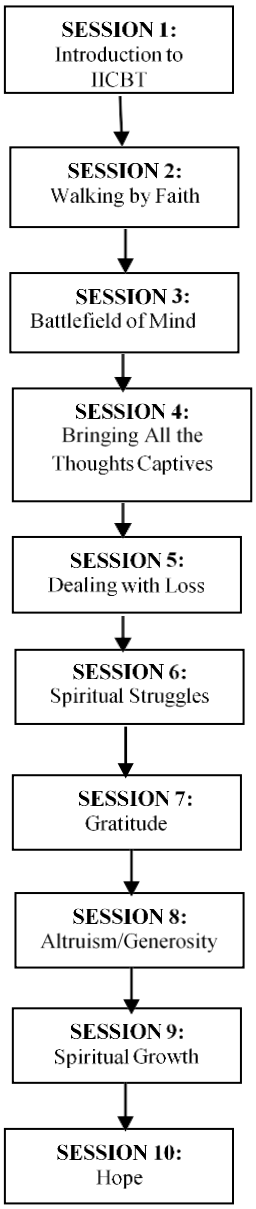
To mitigate the impact of dropout, researcher applied several strategies. Like researcher provided funds approximatory 85,000 Pkr for the transportation, workbooks printing andfood items to the client (women suffering with PCOS) to picked up them from teir door steps and drop them therapy sites. Secondly, Islamic Integrated Cognitive Behavioral therapy is itself is very flexible, it allows the therapist to develop a strong rapport building with the client. For instance if client did not come with the assigned homeworks, the therapy guidliens allows thetherapist to work with the client to complete her previous home work after completing the respective session.It provided the sense of connectedness to the client and emptahtic relationship developed between the therapist and client. Secondly, if client drop her two session consistently, then guidelines also allows the therpist to contact

with the client and motivate them to received next session.So by applying theses stratigies researcher facilitated all 20 women suffering from PCOS so the findings are not affected.

In the present study, out of 20 participant 16 participant took all the 10 session while 4 participants rescedualed their session due to some domestic and financial constrains that were handled by therapist.

Figure 12

Session plans of Islamic Integrated Cognitive Behaviour Therapy



Note. 10 session of Islaic Integrated Cognitive Behavioral Therapy adapted by Sabki et al., in 2018. Fro "Islamic Integrated Cognitive Behavior Therapy 10 Sessions Treatment Manual for Depression by S.Zuraida, 2018, ***In Clients with Chronic Physical Illness Participant Workbook.***

Session 1: Building Rapport

Goals

The session primary goal was to establish a rapport with the client.

1. To give a detailed introduction of IICBT to the client
2. To give insight about the advantages and challenges of IICBT.

Rapport entails establishing direct eye contact with someone and aligning oneself with their mindset. A significant portion, 93 percent, of the perception of one's authenticity is derived not from the content of their words, but rather from the manner in which they are spoken and the appreciation shown for the other person's opinions and emotions. Establishing rapport with someone allows for respectful engagement even when there are disagreements. It is crucial to acknowledge and appreciate others as distinct persons. The process of assessing and introducing IICBT involves the therapist establishing a strong therapeutic alliance with the patient and familiarizing them with the fundamental structure of the program. This includes the therapist delving into any spiritual challenges the patient may be experiencing in connection with their faith. The client received a kind greeting and was instructed to sit on the chair with utmost comfort. The therapist started by providing her introduction and also obtained an introduction from the client. The therapist provided utmost attentiveness, actively listened, offered unconditional positive regard, and shown respect, resulting in a well-established rapport. Once rapport was established the IIUI Religious among Muslim-modified scale (Urdu) is used to explore patient's religious orientation of the client. It also gave the opportunity to the herapist to understand the patient's perception and understanding of faith tradition, and religious beliefs. Furthermore, clients requested to create a daily activities checklist that includes corresponding feelings and emotions.

Session 2: "Behavioral Activation: Walking by Faith".

Goal

The goal of this session was to give insight to the problematic behavior and their effect

1. Define the significance of the treatment
2. Introduce the self-monitoring activities

The client's comprehension of the purpose of the therapy, mood, and activity self-monitoring is reaffirmed. The therapist's duty is to actively engage the client and promote their understanding, with the aim of integrating the patient into the IICBT paradigm. At the beginning of each session, clients are requested to place a recommended verse from the Quran in several visible locations, allowing them to repeatedly read and reflect over it. Furthermore, the client was instructed to choose an activity and engage in the necessary planning for its execution. During the session, the therapist introduced the notion of positive activities and encouraged the belief in the positive results of events, emphasizing the idea that everything is guided by Allah. During this task, the therapist provided information on several verses from Quran and their corresponding interpretations. The therapist instructed the client to recall a bad occurrence and proceeded to examine any specific examples provided by the client. The therapist then conducted a detailed analysis of the client's actions, the circumstances surrounding the event, and how, in the client's perspective, it affected their mood. In order to disrupt this harmful pattern, a homework task called "Pleasant activities" was carried out. The "Pleasant Activities" assignment aims to combat depression-induced inactivity and promote the involvement of patients in the Muslim community. Another task for the client was actively participating in the Muslim community, based on the premise that being in the company of virtuous persons enhances the well-being of those suffering from depression. The client's objective was to connect with a member of the religious community for example to join any Islamic Institution (madrassah) or online Muslims communities who could provide companionship and discuss the concept of Allah's love. Through this interaction, the client gained a deeper understanding that their difficulty is simply a

manifestation of Allah's love, which greatly uplifted their mood. The third assignment was the reading of the provided literature on harmful thinking patterns and theological reflection, in order to equip the client for the upcoming session.

Session 3: "Identifying unhelpful thoughts:

Goal of the session

Introduce the cognitive process

- Teach the client to identify the mood and thoughts
- Introduce categories of unhelpful thinking and their Islamic importance
- Introduce contemplative prayer

At the beginning of the session, the therapist will discuss the homework assignment and thereafter complete a weekly mood review scale (ranging from 0 to 10) to analyze the client's mood. The concept of "the battlefield of the mind" shares similarities with the notion of "purification of the heart" (Takhalli concept), which involves a process of identifying the thoughts that give rise to bad emotions. The ABC approach was employed to identify the maladaptive cognitions. Following the ABC Model, the practice of Contemplative prayer is taught, which resembles meditation and involves the recitation of verses from the Quran or Hadith. It is important for the therapist to provide guidance to the patient before concluding the session. Because God wants His worshippers to converse and whisper to Him, contemplation prayer is the wayto fosters a closer relationship with Him. The client was assigned homework that involved reading and memorizing verses, engaging in contemplative prayers, keeping a thought diary, participating in positive activities, and connect with the religious scholar or Muslim community.

Session 4: "Challenging Unhelpful Thoughts:

Goal of the session

- Refine the client ability to monitor the thoughts and cognitive distortion

- Understanding that one's interpretation leads to change in mood
- Challenging the irrational beliefs and define alternatives
- Importance of religious practice
- Introduce mindful prayer (Salah) based on contemplative prayer.

"Bringing All Thoughts Captive" is a follow-up to session 3, focusing on the patient's "Thought Log" to identify any challenges. Additionally, it involves discussing the trials and tribulations experienced by the Prophet Muhammad (PBUH) and his companions as examples of how unwavering faith in God can lead to a meaningful life. The therapist utilizes the patient's religious beliefs, including the resources of the Quran and Hadith, as well as contemplative prayer and Mindful Salah, to confront and address problematic thinking. Ultimately, the client delegates the task of assigning homework.

Session 5: "Dealing with Loss"

Goal of the session

- Identify the losses in client's life as a result of illness
- Identify Spiritual losses
- Teach tools for dealing with loss
- Describe the control verses active surrender
- • Following a review of the homework assignment, the therapist assisted the patient in identifying any losses (be they biological, psychological, or social) that had occurred as a consequence of the illness. This included spiritual losses as well. This process bore resemblance to the Tahalli concept of "Filing-up the Heart with Positivity." "Thought Log" information is utilized to inform cognitive restructuring utilizing Quranic verses. The therapist might reference verses from the Quran that describe the perseverance of the prophets and those who demonstrate hope and strength.

Session 6: "Coping with Spiritual Struggles and Negative Emotions"

The goal of the session

- Identify the client spiritual struggle
- Identify the core experience that causes the change in client belief
- Discussion of forgiveness and repentance
- Imagery exercise

During this session, reviewed the homework assignment which focused on the basic effect of disease and depressionon a patient's religious beliefs and confidence in God. The spiritual evaluation was conducted using a questionnaire specifically designed for spiritual assessments.was employed to evaluate the patient's existential battle resulting from their sadness or physical condition, wherein they may perceive a sense of divine vengeance or abandonment. This session was highly significant. The therapist employed the technique of reflective listening to evaluate the patient's genuine negative emotions towards God, which ultimately facilitated healing and spiritual development. Upon identifying problematic spiritual views towards God, the therapist introduced the concepts of forgiveness and repentance. Additionally, the therapist conducted a forgiveness imagery exercise with the clients with the help of worksheet. In this worksheet the client asked to forgive someone as you want that Allah will forgive you. The client also asked to write down the reason of conflict and after forgave that person what is her feeling, so from this exercise client feel relaxed and feel connected with Allah and understand the importance of forgiveness and repentance.

Session 7: "Gratitude"

Goal of the session

- Introduction to gratitude and its relation with client's illness experience
- Practice cognitive restructuring from a gratitude framework

- Focus on religious gratitude
- Grateful behaviors towards others

Upon examination of the homework assignment, it becomes evident that it centers on the concept of Islamic gratitude. This entails expressing gratitude towards God, individuals, and the experiences that God has bestowed, as described in the Quran. The Prophet Muhammad (PBUH) is revered as someone who exemplified the utmost level of gratitude towards God, even in the face of unimaginable hardships. "Gratitude Exercise - Counting Our Blessings" and "Gratitude Exercise - Celebrating Our Blessings" align with the cognitive restructuring model, which enhances mood and facilitates the development of grateful behavior by prompting the client to identify a living person with whom they would like to express gratitude. Ultimately, the clients were provided with homework assignments.

Session 8: "Altruism and Generosity"

Goal

- Review gratitude exercise
- Introduce the concept of Altruism and Islamic teachings
- Altruism exercise

Initially, the therapist inquired about the homework. Subsequently, this session was centered on the evaluation of gratitude exercises, which eventually fosters self-reflection and character change. Through conscious-focus, it is important to determine if the clients are ready to incorporate grateful feelings and behavior into their life. Islam praises not only those who excel in their relationship with God but also who put others in need above all as described in the Quran during episode of "Hijrah". The sessions align with the practice of Tahalli, which involves nourishing the soul by cultivating positive qualities via thoughts and acts. During this session, the therapist and client engaged in an exercise focused on altruism. The therapist instructed the client to choose any three acts of altruism, which the client should then carry

out before the next session. These acts should be done without any anticipation of receiving rewards or gratitude from the individuals being helped, but rather motivated by the client's relationship with Allah. Homework was assigned to the client at the conclusion.

Session 9: "Stress-Related and Spiritual Growth"

Goal

- Introduce and develop the concept of stress-related growth, especially for spiritual perspective
- Help the client to look for the positive aspects. through series of exercise

During this session, the homework assignment was reviewed, focusing on the topic of spiritual and stress-related growth. The discussion centered around two significant narrations in the Quran that revolve around the prophets Yusuf (AS) and Ayub (AS). The key priority was to accurately understand these persons in order to encourage the patient to seek out good aspects in life while facing challenges. This task is accomplished by searching for a positive worksheet. In Tazkiyah al Nafs, the individual is urged to engage in self-reflection (Muhasabah) and actively seek absolution from God. This session was of utmost significance as the participants' interpretations provided an opportunity for the client to adopt a positive perspective towards their sickness. Additionally, the therapist was preparing the client for the concluding session.

Session 10: "Hope and Relapse Prevention"

Goal

- Introduce the topic of Hope in the front of client by using religious cognitive and behavioral changes
- Discuss dreams and goals
- Termination of the treatment
- To give maintenance and relapse prevention plan

This was the last session. It focused on the correlation between hope and faith by examining the phenomenon of benefit discovery, which refers to the process of extracting good personal development from challenging circumstances. This concept was created with the aim of cultivating optimism, finding purpose and significance in challenging circumstances, and fostering spiritual progress to attain ultimate satisfaction, particularly in the hereafter. The client was provided with a maintenance and relapse prevention regimen at the conclusion. The patient was advised to utilize the worksheets as instruments, analyze their ideas and actions in relation to the Quran and Hadith, and maintain a notebook to document their daily activities and mood. During the final stage of the termination protocol, when the therapist requests the client's feedback on the treatment or session, it is important for the therapist to avoid becoming defensive. Instead, it is important to employ reflective listening and empathy, particularly at this concluding phase. At the end the therapist thanks the all the client individually.

Tryout study

The present was used the Urdu manual of Islamic Integrated Cognitive Behavior Therapy. The manual was translated by Shezad Hussain in 2018 so to validate the translated version the researcher conducted the tryout study by taking 5 participants with age range 18-45 suffering from PCOS and were on proper medication. In this study the translated manual of the Islamic Integrated Cognitive behavior therapy was used so for the validation of the manual in try out study was conducted with five participants. The result of the try out study was reliable so on the next step the manual used in the main study.

Table 18

Mean, Standard Deviation and t- values of pretest and posttest scores on multidimensional distress and resilience of participants (N= 5)

	Pre-test (N=05)		Post test (*N*=05)				95% CI	
Variables	*M*	*SD*	*M*	*SD*	*t(4)*	*P*	*LL*	*UL*
MDD	179.25	16.63	64.25	*22.41*	*22.13*	*.000*	*91.01*	*102.53*
Resilience	24.87	12.78	59.60	*8.56*	*12..45*	*.000*	-39.42	51.63

Note. MDD=Multidimensional Distress, M=mean, SD=Standard Deviation, LL= Lower limit, UL=Upper Limit, CI=Confidence Interval

******p<0.001***

Table 18 point out t-test result for differences of pre and post test scores of MDD and resilience scale of the tryout study. Results accentuate significant differences between pre and post assessment of the group on both scales which support that researcher can use the translated manual in the main study.

Intervention for control Group. The control group was consisted of 20 100 [married (n=10) and unmarried (n=10)] women suffering from PCOS and have the same baseline as the experimental group. The reading material was provided to the control group. The reading material was about PCOS etiology, risk factors and management.

Post testing. This phase of the study was about the post-assessment of the participants of the measures of Multidimentional distress and resilience through Multidimensional distress Inventoryfor Polycystic ovary syndrome-Urdu (MDDI-PCOS-U) and Connor Davidson Resilience Scale-Urdu (CDRS-U). After completion of the 10 sessions

of IICBT in the main study, post assessment was conducted through similar instruments MDDI-PCOS-U and CDRS-U from all the participants. Women who participated were debriefed about the difference in activities between experimental and control groups. The session ended by presenting a greeting card to acknowledge their participation and cooperation throughout the program. The post-intervention assessment was completed with 40 participant participants in both groups.There was no drop out in the control and expiremental group.

Follow up

The subsequent sessions were determined based on the therapeutic context. The first follow-up sessions occurred one week and three months following the cessation of therapy, respectively. At first follow up post assessments were done. The treatment's efficacy was assessed by a follow-up done three months later. Follow-up appointments serve as a bridge between a therapeutic setting and the outside world. It decreases the likelihood of relapse, enabling the client to address emerging concerns while adapting to new advancements.

Such issues can be recognised and successfully resolved as they come up with the help of follow-up counselling. Improving the patients' support network is a crucial part of the healing process as it enables them to get ongoing encouragement. The framework of follow-up counselling enables clients to stay in touch with their network of therapists, counsellors, and peers who are in recovery and actively involved in their care. This assistance ensures that the client remains connected with the objectives of their recovery and builds a solid foundation from which they may broaden their network of support (Davis, 2018).

During indoor therapy, clients undergo a transformative learning process where they acquire new skills, prioritise the adoption of a healthy lifestyle, and establish fresh goals for themselves. The client must commit to follow-up counselling in order to maintain these lifestyle modifications. This counselling approach not only supports clients in maintaining the

good adjustments they have made in their lives, but also assists them in avoiding the risks associated with compromising their progress and relapsing. Therefore, the changes put into motion through treatment can only prove beneficial if they are supplemented by follow-up counseling and continuation of the care that was provided to them during the indoor treatment phase.For the present study the follow up session were conducted individually after six weeks of last session of the therapy.

Chapter 3

Results

Results of this study were analyzed through Descriptive statistics, realiability analysis, correlation analysis, t-test, ANOVA and paird sample t-test.

Table 19

Descriptive analysis of sample characteristics of study (N=40)

Variables	Categories	Expirmental group	Control group
Age range			
18-30	22	11	11
31-45	18	9	9
Working Status			
Working	18	9	9
Non working	22	11	11
Education			
Matric	18	9	9
Under Graduate	12	6	6
Post Graduate	10	5	5
Marital status			
Married	20	10	10
Unmarried	20	10	10
PCOS in Family			
Yes	32	16	16
No	8	4	4
PCOS in Mother			

Yes	28	14	14
No	12	6	6
Socio-economic Status			
Lower	14	7	7
Middle	12	6	6
Higher	14	7	7

Note. F=frequency, M=Mean, SD=Standard Deviation

As it is observed in tbale 19, 20 of the participant are married and 20 are un-married in each group.i.e. In the expiremental and control group 11 females belongs to age group 31-45 and 9 belongs to the age group 18-30. 11 women are non-working and 9 are working. Among 7 women belong to lower class, 7 belong to higher class while 6 belong to middle class. 9 women have matric degree 6 have undergraduate and 5 have post graduate degree. 14 women mothers have history of PCOS and 8 women mothers have not any hsstory of PCOS.

Table 20

Descriptive statistics and alpha coefficient of the Scales of the study (N=40)

Variables		K	*M(SD)*	*A*	Ranges		skewness	Kurtosis
					Actual	Potential		
	exp		164.32(14.31)	.88	143-187	51-255	.58	0.32
MDDI-PCOS	con	51	163.18(14.14.52)	0.87	142-189	51-255	.59	0.37
	Exp		53.85(4.47)	.75	46-64	19-95	.12	0.14
PD	con	19	52.79(4.53)	.77	45-65	19-95	.14	0.16
	Exp		55.50(5.31)	.78	48-65	17-85	.13	0.50
SD	Con	17	54.32(5.02)	.76	45-66	17-85	0.12	0.54
	Exp		47.12 (5.91)	.78	38-58	15-75	0.15	0.54
SpD	Con	15	46.80(5.12)	.76	39-57	15-75	.56	-0.96
	Exp		27.35(7.27)	0.87	12-41	25-125	-0.71	-.51
CDRS-U	Con	25	26.44(7.34)	0.85	14-40	25-125	-0.69	-0.53

Note: MDDI-PCOS= Multidimensional distress Inventory for Polycystic ovary syndrome; U= Urdu; PD=Psychological distress; SD= social Distress; SpD= Spiritual Distress; CDRS= Conner Davidson Resilience Scale; M=mean; SD=Standard Deviation. K= no of Items

Result of table 21 demonstrates significantly high Alpha Reliability Coefficient of all the scale. The alpha reliability for the MDDI-PCOS-U and its subscales are significant in both expiremental and control group. The result also indicated that alpha relaibilty of CDRS-U is also high in both group<0.001.

Table 21

Correlation coefficient of Multidimensional Distress and Resilience (N=40)

	Variables	1	2
1	Multidimensional Distress	-	-0.85***
2	Resilience	-	-

Note. ***$p<0.001$

The result of table 21 accentuates that there is significant negative correlation between Multidimensional distress and resilience.

Table 22

Mean, Standard Deviation and t- values of Body Maas index in the married and unmarried group (N= 40)

Groups	Body Mass Index				
	Normal		Overwieght		X^2
	N	%	n	%	
Married (N=20)	3	15	17	85	4.26
Unmarried (N=20)	5	25	15	75	
Total	8	20	32	80	

P< *0.001*

Table 22 shows that there is non significant difference in body mass index between martal status i.e., married and unmarried(x^2 =4.26, p=0.003). 17(85%) from married group and 15(75%) from unmarried group have high BMI.

Table 23

Mean, Standard Deviation and t- values of pretest and posttest scores on multidimensional distress of experimental group and control group (N= 40)

	Multidimensional Distress								
	Pre-test		Post test				95% CI		
Groups	*M*	*SD*	*M*	*SD*	*t*	*p*	*LL*	*UL*	Cohen's d
Experimental group (N=20)	161.45	14.99	68.75	18.46	25.30	.000	85.03	100.36	5.51
Control group (N=20)	159.60	13.83	159.10	13.91	12.36	0.059	87.54	0.94	0.03

Note. MDDI-PCOS-U= Multidimensional distress-Urdu, ***$p<0.001$.

Table 23 point out t-test result for differences of pre and post test scores of MDD of experimental and control group. Results accentuate significant differences between experimental and control group post test score of Multidimensional distress Inventory for Polycystic ovary syndrome-Urdu. Post-test score of PCOS women manifest low Multidimensional distress (M=68.75, SD=18.46) in experimental group (M=159.10, SD=13.83) than the control group, $p<0.001$.

Table 24

Mean, Standard Deviation and t- values of pretest and posttest on Resilience of experimental group and control group (N= 40)

	Resilience								Cohen's d
	Pre-test		Post test				95% CI		
Groups	*M*	*SD*	*M*	*SD*	*t*	*p*	*LL*	*UL*	
Experimental group (N=20)	24.70	6.65	72.60	2.04	-14.35	.000	-40.06	-53.73	9.73
Control group (N=20)	24.95	5.74	24.75	5.55	0 .59	0.55	5.41	-3.01	0.11

Note. M= Mean, SD= Standard Deviation, LL= Lower Limit, UL=Upper Limit, ***$p<0.001$.

Table 24 point out t-test result for differences of pre and post-test of resilience of experimental and control group. Results accentuate significant differences between experimental and control group post test score of resilience. Post-test score of PCOS women manifest high resilience (M=72.60, SD=2.04) in experimental group (M=24.75, SD=5.55) than the control group.

Table 25

Mean, Standard Deviation and t- values of pre-test and posttest scores on Psychological, Social and Spiritual subscale of MDDI-PCOS-Urdu of experimental group (N=20)

Experimental group	Pretest Score (N=20)		Post test score (N=20)				95% CI		
Variables	*M*	*SD*	*M*	*SD*	*t*	*p*	*LL*	*UL*	*Cohen's d*
Psy-D	55.80	4.69	25.25	3.58	22.95	0.000	27.76	33.33	7.29
Socio-D	54.75	5.67	23.75	3.02	21.58	0.000	27.99	34.00	6.82
Sp-D	47.00	5.23	19.75	2.85	23.25	0.000	24.79	29.70	6.47

Note. Psy-D= psychological Distress, Socio-D= Social Distress, Sp-D= Spiritual Distress, CI= Confidence Interval, ***$p<0.001$.

Table 25 point out t-test result for differences of pre and post test scores of sub scales of MDDI-PCOS-Urdu of experimental group. Results accentuate significant differences between pre and post test score of Psychological, Social and Spiritual subscales of experimental groups. Post-test score of 3 subscale manifest mild level of Psycho (*M*=25.25, *SD*=3.58), Socio (*M*=23.75, *SD*=3.20) and spiritual distress (M=19.75, SD=2.85), $p<0.001$.

Table 26

Mean, Standard Deviation and t- values of pre-test and posttest scores on Psychological, Social and Spiritual subscale of MDDI-PCOS-U of control group (N= 20)

Control group	Pretest Score (N=20)		Post test score (N=20)				95% CI	
Variables	*M*	*SD*	*M*	*SD*	*t (19)*	*p*	*LL*	*UL*
Psy-D	55.90	4.56	55.70	4.52	0.56	0.25	0.46	-0.26
Socio-D	56.25	4.89	55.60	4.12	-0.43	0.12	0.18	-0.28
Sp-D	46.60	5.14	45.50	4.90	1.37	0.53	0.37	-0.07

Note. Psy-D= psychological Distress, Socio-D= Social Distress, Sp-D= Spiritual Distress, CI= Confidence Interval, ***p<0.001.

Table 26 point out t-test result for differences of pre and post test scores of Subscale of MDDI-PCOS-U of control group. Results accentuate non-significant differences between pre and post test score of psycho-socio-spiritual distress of control groups. Post-test score of 3 subscales of MDDI-PCOS-U manifest same level distress. As the posttest Psychological distress (*M*=55.70, *SD*=4.52) same as pre-test scores (*M*=55.90, *SD*=4.56), likewise Post-test of Social distress (M=55.60, SD=4.12) and Spiritual distress (M=45.50, SD=4.90) are same as pre-test (M=56.25, SD=4.89) and (M=46.60, SD=5.14) respectively.

Table 27

Mean, Standard Deviation and t- values of pretest and posttest scores on Multidimensional distress Inventory for Polycystic ovary syndrome-Urdu of experimental group with respect to marital status (N= 20)

	Psycho-socio-spiritual distress Inventory for Polycystic ovary syndrome-Urdu						95% CI		
	Pre-test (N=20)		Post test (*N*=20)						
Groups	*M*	*SD*	*M*	*SD*	*T*	*P*	*LL*	*UL*	*Cohen's d*
Married (N=10)	152.21	16.32	74.82	*21.55*	*23.42*	*.000*	*83.12*	*102.77*	*4.04*
Unmarried (N=10)	148.73	17.83	62.30	23.65	24.65	0.000	92.12	100.78	4.12

Note. MDDI-PCOS-U= Multidimensional distress Inventory for Polycystic ovary syndrome-U=Urdu, ****p*<0.001.

Table 27 point out t-test result for differences of pre and post test scores of MDDI-PCOS-U of experimental with respect to marital status. Results accentuate significant differences between post test score of MDDI-PCOS-U. Post-test score of PCOS women manifest low Multidimensional distress in both married and unmarried group, p<0.001.

Table 28

Mean, Standard Deviation and t- values of pretest and posttest scores on resilience of experimental group with respect to marital status (N= 20)

	Resilience								
	Pre-test (N=20)		Post test (N=20)				95% CI		
Groups	M	SD	M	SD	t	p	LL	UL	Cohen'd
Married	22.54	8.54	63.21	3.65	-13.35	.000	-54.16	-66.83	6.91
Unmarried	24.43	6.97	66.33	2.87	-12.98	.000	-58.21	-65.97	7.86

Note. ***p<0.001

Table 28 point out t-test result for differences of pre and post test scores on resilience (Urdu) of experimental group with respect to marital status. Results accentuate significant differences between married and unmarried group post test score of resilience. Post-test score of PCOS women in both married and unmarried group manifest high resilience, p<0.001.

Table 29

Mean, Standard Deviation and t- values of younger and elderly women on Multidimensional distress and resilience among PCOS women (N= 40)

	Younger (n=22)		Elderly (N=18)				95% CI		
Variables	*M*	*SD*	*M*	*SD*	*t(38)*	*p*	*LL*	*UL*	Cohen's d
MDD	173.50	12.40	155.32	9.86	13.23***	0.000	-22.45	-7.56	1.62
Resilience	25.32	5.66	41.43	5.02	6.38***	0.000	14.42	21.09	3.01

Note. MDD= Multidimensional Distress, CI= Confidence interval, M= Mean, SD= Standard Deviation, LL= Lower Limit, UL=Upper Limit, ***p<*0.001*,

Table 29 showed t-test result for mean differences of age range in corresponding with Multidimensional distress and resilience among PCOS women. Results accentuate significant differences of age on Multidimensional distress and resilience. Younger women manifest high level of Multidimensional distress (*M*=173.50, *SD*=12.40) than elderly women (*M*=155.32, *SD*=9.86). Result also indicated that younger women manifest low level of resilience (M=25.32, SD=5.66) than elderly women (M=41.43, SD=5.02).

Table 30

Mean, Standard Deviation and t- values of married and unmarried women on Multidimensional distress and resilience among PCOS women (N= 40).

	Marital status								
	Married (n=20)		Un-Married (N=20)						
							95% CI		
Variables	*M*	*SD*	*M*	*SD*	*t(38)*	*p*	LL	UL	Cohen's d
MDD	168.50	13.93	152.55	9.48	14.65***	0.000	-23.58	-8.31	1.33
Resilience	23.10	6.78	31.60	5.83	6.25***	0.000	4.45	12.54	1.34

Note. MDD= Multidimensional Distress, CI= Confidence interval, M= Mean, SD= Standard Deviation, LL= Lower Limit, UL=Upper Limit, ****p<0.001*.

Table 30 showed t-test result for mean differences of marital status in corresponding with Multidimensional distress and resilience among PCOS women. Results accentuate significant differences of marital status on Multidimensional distress and resilience. Married women manifest high level of Multidimensional distress (*M*=168.50, *SD*=13.93) than un-married women (*M*=152.55, *SD*=9.48). Result also indicated that married women manifest low level of resilience (M=23.10, SD=6.78) than un-married women (M=31.60, SD=5.83).

Table 31

Mean, Standard Deviation and t- values of working and non-working women on multidimensional distress and resilience (N= 40)

	Occupational status								
	Working (N=18)		Non-working (N=22)				95% CI		
Variable	*M*	*SD*	*M*	*SD*	*t(39)*	*p*	*LL*	*UL*	Cohen's d
MDD	164.30	16.05	183.54	13.46	11.17***	0.000	-13.47	-26.61	1.29
Resilience	24.16	7.65	21.40	9.61	9.41***	0.000	12.76	14.74	0.31

Note: MDD= Multidimensional Distress, ***p<0.001, CI= Confidence interval, M= Mean, SD= Standard Deviation, LL= Lower Limit, UL=Upper Limit, ****p<0.001*.

Table 31 showed t-test result for mean differences of occupational status in corresponding with Multidimensional distress and resilience among PCOS women. Results accentuate significant differences of occupational status on Multidimensional distress and resilience. Non-working women manifest high level of Multidimensional distress (*M*=164.30, *SD*=16.95) than working women (*M*=183.54, *SD*=13.46). Result also indicated that non-working women manifest low level of resilience (M=21.40, SD=9.61) than working women (M=24.16, SD=7.65).

Table 32

Mean, Standard Deviation and t- values of pretest and post-test scores on Multidimensional distress of experimental group with respect to marital status (N= 20)

	Multidimensional Distress								
	Pre-test (*N*=20)		Post test (*N*=20)				95% CI		
Variables	*M*	*SD*	*M*	*SD*	*t(18)*	*p*	*LL*	*UL*	Cohen's d
Married (10)	165.00	16.75	68.60	25.50	15.82	*0.000*	82.62	*110.17*	*4.40*
Un-married (10)	157.90	17.88	64.92	27.69	21.88	0.000	79.80	98.19	3.98

Note. M= Mean, SD= Standard Deviation, LL= Lower Limit, UL=Upper Limit, CI= Confidence interval, ***p<*0.001*.

Table 32 point out t-test result for differences of pre and post test scores of Multidimensional Distress of experimental group with respect to marital status. Results accentuate significant differences on pre and post score of the experimental group with respect to marital status. Post test score of both sub groups manifest low distress; married (M=68.60, SD=24.50) and Unmarried (M=64.92, SD=27.69), p<0.001. The results are showing the efficacy of therapeutic intervention on both married and unmarried groups.

Table 33

Mean, Standard Deviation and t- values of pretest and post-test scores on Resilience of experimental group with respect to marital status (N= 20)

Variables	Resilience						95% CI		
	Pre-test (*N*=20)		Post test (*N*=20)						
	M	*SD*	*M*	*SD*	*t(19)*	*p*	*LL*	*UL*	*Cohen's d*
Married (10)	24.30	9.71	70.50	2.60	17.60	0.000	-9.85	1.42	6.49
Un-married (10)	24.10	8.88	74.40	2.30	16.31	0.000	-4.76	1.31	7.29

Note. M= Mean, SD= Standard Deviation, LL= Lower Limit, UL=Upper Limit, CI= Confidence interval, ***$p<0.001$.

Table 33 point out t-test result for differences of pre and post test scores of resilience of experimental group with respect to marital status. Results accentuate significant differences on pre and post score of the experimental group with respect to marital status. Post test score of both sub groups manifest high level of resilience; married (M=70.50, SD=2.60) and Unmarried (M=74.40, SD=2.30), $p<0.001$. The results are showing the efficacy of therapeutic intervention on both married and unmarried groups.

Table 34

Mean, standard deviation and F values for women with PCOS in the different socioeconomic class on multidimensional distress and resilience (N=40)

	Lower Class n = (14)		Middle Class n = (12)		Upper Class n = (14)				95%CI		
Variables	*M*	*SD*	*M*	*SD*	*M*	*SD*	*p*	*F*	LL, UL	Post Hoc	η2
MDD	172.71	13.19	156.00	14.31	142.21	15.91	.000	188.24	165.09, 180.33	3>2>1	.51
Resilience	21.00	7.69	30.91	6.30	32.64	5.09	.000	11.75	17.71,24.28	3<2<1	.72

Note. MDD= Multidimensional Distress, M=Mean, SD= Standard Deviation, LL= Lower Limit, UL=Upper Limit, CI= Confidence interval, ***p<0.001.

Table 34 shows means, standard deviation and F values for three socioeconomic classes of society on Multidimensional distress and resilience among women with PCOS. Result showed that students in lower class were having more distress F (14) = 172.24, p<0.001 as compared to women in middle F (12) = 156.00 and upper class F (14) =142.21. Results also showed women from higher class have more resilience tendencies F (14) = 32.64, p<0.001 than in middle class F (12) = 30.91 and lower class F (14) = 21.00.

Table 35

Mean, Standard Deviation and t- values of post test and follow up scores on psycho-socio-spirtual distress and resilience of experimental group (N= 20)

Variables	Resilience						95% CI	
	Post test (N=20)		Followup session (N=20)					
	M	SD	M	SD	t(19)	p	LL	UL
Psycho-socio-spiritual distress	68.75	18.46	67.32	18.52	15.43	0.23	-9.65	1.23
Resilience	72.60	2.04	73.41	2.10	14.26	0.28	-4.65	1.47

Note. M= Mean, SD= Standard Deviation, LL= Lower Limit, UL=Upper Limit, CI= Confidence interval, ***$p<0.001$.

Table 35 point out t-test result for differences of post test and follow up test scores on psycho-socio-spiritual distress inventory and resilience of experimental. Results accentuate non-significant differences on post test and follow up test score of the experimental group. The results are showing the efficacy of therapeutic intervention at the level of follow up.

Chapter 4

Discussion

The primary aim of this study was to investigate the effectiveness of Islamic Integrated Cognitive Behavioural Therapy on psycho-socio-spiritual distress and resilience among women suffering from PCOS. The rationale for maintaining a focus on women is rooted in the fact that women constitute 49.56% of the population in Pakistan (Azhar, 2020). Any nation's progress is contingent upon women's active involvement and engagement. In the context of Pakistan, women hold a significant role within the family unit, with religious and cultural norms emphasizing their primary responsibility of maintaining familial cohesion. In our cultural context, it is seen that women often neglect their well-being, even when faced with diseases that might have enduring emotional and physical repercussions. The available body of literature demonstrates that PCOS is linked with psychological, social, and spiritual distress (Chaudari, 2018; Williams et al., 2015; Amiri et al., 2015). The PCOS remains prevalent within the genetic makeup of the affected individual, but their current lifestyle influences its manifestation, therefore leading to the transmission of Polycystic Ovary Syndrome (PCOS) conditions to future generations. Polycystic ovarian syndrome (PCOS) is a prevalent endocrine condition that affects around 11% of the global young population (McGowan, 2011). According to a study conducted by Wu et al. (2017), Pakistan exhibits an infertility incidence of 21.9%. Furthermore, the research findings indicate that 38.5% of the infertility cases in Pakistan can be attributed to Polycystic Ovary Syndrome (PCOS).

Moreover, research conducted on Pakistani women has indicated a 52% high prevalence of Polycystic Ovary Syndrome (PCOS) (Shakeel et al., 2020). A research study conducted among women diagnosed with Polycystic Ovary Syndrome (PCOS) who sought medical care at clinics located in different cities in Pakistan revealed that a majority of these individuals had symptoms

such as obesity, hirsutism, high blood glucose levels, irregular menstrual periods, and acne. Research also showed that women with PCOS also suffer from psychological problems (Chaudari, 2018), social isolation (Williams et al., 2015), hopelessness, and feeling that Allah is punishing them through this disease (Amiri et al., 2015).

According to research done in Pakistan, a significant proportion of women (44.8%) participating in the survey, most of whom were housewives, expressed a preference for experiencing frequent menstrual cycles. This preference was attributed to the perceived relief it gave from domestic responsibilities and religious obligations (Rizvi et al., 2014). Singh (2006) observed that women from lower socioeconomic backgrounds often conceal information about their reproductive experiences, even from their close relatives. The absence of knowledge on the disease and its impact on fertility presents a significant obstacle for women affected by it. The occurrence of infertility on a global scale is linked to many psychiatric problems. The experience of infertility may provoke a range of negative emotional responses, including hopelessness, anger, depression, hurt, embarrassment, and humiliation, as documented by Hadjiconstantinou et al. (2017). Previous research conducted by Pesonen et al. (2023) has revealed a significant prevalence of body image dissatisfaction and depression among women who do not have children.

The above-mentioned research has indicated that women with PCOS experience distress in all domains, including psychological, social, and spiritual. A comprehensive inventory created at the initial stage of the research is utilized to evaluate Psycho-socio-spiritual distress. The psychometric qualities of the scale and its subscale used in this study show a Cronbach alpha of 0.80 or above, indicating that the scales are reliable and appropriate for further research phases.

Another objective of this study was to examine the correlation between Multidimensional distress and resilience in women diagnosed with Polycystic Ovary Syndrome (PCOS).

The first hypothesis of the study was “There is a significant negative relationship between psycho-socio-spiritual distresses among women suffering from polycystic ovary syndrome” and

the result (Table #21) shows that there is significant negative relationship between psycho-socio-spiritual distress and resilience among women suffering from PCOS. Resilience power declines when an individual's distress level rises. Previous research also supports this finding, that a negative correlation was observed between psychological distress and resilience (Matzka et al., 2021; Cuhadar et al., 2014).

Moreover, the presence or absence of resilience significantly influences an individual's reaction to traumatic life experiences. Research has indicated that persons exhibiting lower levels of resilience are more prone to experiencing psychological distress after encountering a lousy life event in comparison to individuals who possess higher levels of resilience. Ong, Bergeman, Bisconti, and Wallace (2006) conducted a study investigating the correlation between resilience and several stress indicators, including daily stressors such as being late for work and significant life events such as losing a spouse and chronic illnesses. The findings suggest that variations in resilience were responsible for the variability observed in emotional reactions after adverse events. High levels of resilience led to diminished connections between the stressful occurrence and the emotional condition of the individuals (Ong et al., 2006). The study conducted by Hardy, Concato, and Gill (2004) yielded comparable findings that provide evidence for a correlation between resilience and stressful life events. According to Hardy et al. (2004), persons who exhibited higher levels of resilience were found to have a decreased tendency to perceive an experience as stressful compared to those with lower levels of resilience. The study conducted by King et al. (1998) on Post-Traumatic Stress Disorder and related psychological distress revealed more evidence of a connection between resilience traits and stressful life events. The findings of the study conducted by King et al. (1998) demonstrated that the relationship between stress and post-traumatic stress disorder (PTSD) was mediated by resilience.

Additionally, the literature elucidates that there is a correlation between resilience and psychological functioning, as well as long-term perceptions of well-being (Avey et al., 2010). A

study by He, Cao, Feng, and Peng (2013) revealed a significant positive association between psychological resilience and overall well-being. Individuals exhibiting higher levels of resilience demonstrated a reduced propensity to report notable psychological distress and showed a greater capacity for swift recovery compared to those with lower levels of resilience. In a study conducted by McDermott, Cobham, Barry, and Stallman (2010), empirical support has been found for a correlation between resilience and psychological well-being. Low resilience scores were more common in adults with prior or present mental illness, indicating a link between decreased resilience and increased psychological distress as well as mental disease over time. In a study conducted by Lee, Sudom, and Zamorski (2013), it was found that resilience played a significant role in predicting the levels of psychological well-being and mental health reported by individuals. The correlation between Multidimensional distress and resilience was assessed using a correlation coefficient, which revealed a statistically significant negative association. Resilience in psychology refers to an individual's ability to adjust and manage effectively in the face of trauma, adversity, or essential life challenges (Masten & Obradovic, 2008). Resilience is not a fixed attribute but may be strengthened and steadily increased over time through various coping methods and interventions (Mahdiani & Ungar, 2021). There is a lack of research on the relationship between PCOS and resilience.

Nevertheless, several studies have suggested that individuals diagnosed with Polycystic Ovary Syndrome (PCOS) may encounter challenges that necessitate an increase in resilience in order to cope effectively. For example, research conducted by Dokras et al. (2011) revealed that women diagnosed with Polycystic Ovary Syndrome (PCOS) had elevated levels of anxiety and depressive symptoms, along with a significantly diminished quality of life as compared to women without PCOS. The management of polycystic ovary syndrome (PCOS) symptoms, such as irregular menstrual periods and infertility, may require fostering a sense of resilience and the adoption of adaptive coping methods. Zhang and Liu (2021) conducted a cross-sectional study to

examine the relationship between psychological resilience and burnout among female employees working in a shopping mall in China with PCOS. One of the findings from the survey indicated that the overall psychological resilience scores of female employees in shopping malls with Polycystic Ovary Syndrome (PCOS) were significantly poorer compared to those of women without PCOS.

The other hypiotheses was “At post test level after the application of Islamic Integrated Cognitive Behavioral Therapy women suffering from PCOS Score low on multidimensional inventory for PCOS. The results of (Table#23) demonstrate the efficacy of Islamic Integrated Cognitive Behavioral Therapy in addressing psycho-socio-spiritual distress. The findings revealed a statistically significant difference in the post-test scores between the experimental and control groups across both scales. The sample of 40 women suffering from PCOS was divided further into two groups: experimental (N=20) and control group (N=20). The results from the experimental group demonstrated that due to Islamic Integrated Cognitive Behavioral Therapy, there was a decline in distress levels among women, accompanied by an increase in resilience. In contrast, the control group exhibited no significant changes during the post-assessment Phase. Prior studies have provided evidence to substantiate the finding that numerous systematic reviews and randomized controlled trials have shown that religion-adapted psychotherapy demonstrates better results as copampared to conventional psychotherapy in treating mental disorders (Costa & Almeida, 2021), such as Religious integrated Cognitive behavior therapy. The most researched religion-adapted psychotherapy with solid evidence of effectiveness is religious integrated cognitive behavioral therapy (Pearce et al., 2015). The present finding is also supported by the Bio-psycho-social spiritual model that emphasizes the interconnection between bio, psychological, social, and spiritual factors, and the work on spiritual distress can lower the distress among the other psychological and social domains and the overall health of an individual could be better (Sulmasy, 2002).

The Islamic community, like Pakistani people, perceives the agony of chronic or terminal illnesses as a divine test. Muslim perceives that the illness is a chance to become close to Allah (Lari et al., 2008). On the other side, some individuals engage in questioning Allah's plan, the existence of a higher power, the inherent purpose of life, the potential consequences of their diagnoses, and the presence of trustworthy and reliable sources of support (Cobb et al., 2012). To overcome these inquiries among people going through difficult situations, working on their spiritual domain can result in better outcomes. Research has depicted that fulfilling the spiritual needs of patients suffering from chronic illnesses enhances their quality of life (Taylor et al., 2016). The result also elucidates that Islamic Integrated Cognitive Behavioral Therapy was effective in both groups (married and unmarried) of the experimental group. Previous research suggested that II-CBT was more effective in lowering symptoms of major depressive disorder in clients as compared to the other therapies (Ebrahimi et al., 2013). According to interpersonal theory, chronic Illness like PCOS can lead to feelings of shame and embarrassment due to physical symptoms like acne, hair loss, and weight gain, and negative thinking occurs often that affects the relationship with the family, friends, and partner and working on the disturbed thinking pattern according to the client belief system can enhance the quality of life of Muslim women suffering from PCOS. IICBT works on the thinking pattern of the individual by using Islamic Principles to change irrational thoughts to rational thoughts. In a research compared to both the control group and pharmaceutical treatment, II-CBT demonstrated effective results (Ebrahimi et al., 2013). Both Ebrahimi et al. (2013) and Pearce et al. (2015) concluded that R-CBT was more effective than secular CBT. Notably, Johnson and Ridley (1992) conducted a study that revealed that only II-CBT demonstrated a reduction in irrational beliefs, but secular Rational-Emotive Therapy did not yield the same outcome.

Although there is a scarcity of research conducted on Muslims, there is a limited body of research on the efficacy of islamically modified CBT (Koenig & Shohaib, 2014). Two research

teams have done five studies among devout Muslims in Malaysia. These studies investigated the findings of individuals struggling with anxiety disorders (Razali et al., 2002), depression (Razali et al., 1998), and bereavement (Azhar & Varma, 1995). An additional study was carried out in Saudi Arabia, focusing on Muslims who were grappling with schizophrenia (Wahass & Kent, 1997). Several other cultural groups have also benefited from this basic strategy of modifying CBT self-statements to be consistent with clients' spiritual narratives (Hook et al., 2009). For example, clients struggling with neurosis have benefited from CBT modified with Taoistic precepts (Xiao et al., 1998). The beliefs derived from the Latter Day Saint (LDS) tradition have been employed in treating perfectionism (Richards & Bergin, 2001). D'Souza et al. (2002), 2003, and Nohr (2000) all address the use of general spirituality to assist clients in managing their stress, depression, and bipolar disorder. Christian-based Cognitive Behavioral Therapy (CBT) has been utilized to treat compulsive disorder (Gangdev, 1998) and, particularly, depression (Hawkins et al., 1999; Johnson et al., 1994).

Empirical research conducted by Paukert et al. (2009) and Rosmarin et al. (2019) has demonstrated a noteworthy impact of religion, religious education, spirituality, prayer, religious congregations, and religion-centered interventions on the levels of depression and anxiety (Bonelli et al., 2012; Khodakarami et al., 2017; Murray et al., 2020; Papazisis et al., 2014). Acquiring spiritual care is important for alleviating the symptoms of anxiety and despair in persons diagnosed with PCOS. According to Hasan et al. (2017), religion has the potential to relieve stress, grief, and anxiety. Riba et al. (2019) asserted that religious therapy sessions have the potential to reduce anxiety levels in comparison to conventional medical treatment. In their study, Dami et al. (2019) emphasized the importance of spiritual counseling in enhancing spiritual intelligence and alleviating anxiety, stress, and depression in pregnant women. In a study conducted by Mansoor (2021), it was discovered that individuals who actively participate in

religious events and meetings have a reduced likelihood of experiencing depression and anxiety problems.

Şirin and Göksel (2021) conducted a recent study investigating the provision of spiritual care support to Muslim cancer patients undergoing radiotherapy. The study employed an experimental design to assess the impact of this assistance on the patients' spirituality, anxiety, despair, and distress levels. Utilizing an experimental research design with an experimental control group, it was discovered that providing support for Islamic spiritual care had beneficial impacts on patients undergoing radiotherapy while hospitalized. Khaki and Sadeghi Habibabad (2021) conducted a study to examine how religious and spiritual education influenced the mental well-being of female students (2018-2019) at the Technical and Vocational University in Architecture in Tehran Province. The findings demonstrated that religious and spiritual education positively impacted the students' mental health and social and physical performance and reduced depression. Several research has demonstrated the efficacy of religious therapies, including prayer, spiritual talks, listening to the Holy Quran, reading the Quran aloud, spiritual education, and meditation, in alleviating mental diseases (Beiranvand et al., 2014; Safaei et al., 2016). According to Wishart et al. (2018), specific portions of the Holy Quran have been found to impact brain activity, leading to decreased stress and increased relaxation.

The fundamental principles of regular Cognitive Behavioral Therapy (CBT) and Islamic Integrated Cognitive Behavioral Therapy (IICBT) are identical. An essential goal of the Qur'an upon its revelation was to alter human behavior, as Allah specifically instructed mankind to modify their conduct. Similarly, the primary methods of cognitive behavioral therapy seek to change the behavior and emotions of individuals by altering distorted thoughts. Cognitive Behavioral Therapy (CBT) procedures can be adapted to align with Islamic teachings and values, as they are in harmony with the belief in the effectiveness of faith held by many Muslims. Moreover, the theoretical foundation of Cognitive Behavioral Therapy (CBT) centers on the

clients' here and now compatible with the values of the Islamic religion (Mohd Yusoff et al., 2021).

In addition, cognitive behavioral therapy aligns with Islamic teachings coherently and pragmatically to focus cognitive processes. According to cognitive-behavioral treatment, humans can direct and enhance their well-being (Abd Alsatar, 2009). This perspective aligns with a significant Islamic tenet: "...Indeed, Allah will not alter the condition of a people until they alter what is in themselves..." The verse mentioned is from the Qur'an, specifically from chapter 13, verse 11.

IICBT and CBT both have similar therapeutic approaches, which are structured and directive. They emphasize fostering a collaborative partnership between the therapist and the client. These methods involve creating precise session agendas and therapeutic goals and using Socratic questioning strategies. Furthermore, they involve identifying, challenging, and modifying unhelpful beliefs and behavior patterns and seeking active client feedback throughout the therapeutic process (Braun et al., 2015).

IICBT stands out for its intentional and clear integration of clients' religious concepts, beliefs, practices, values, and resources as the core foundation for applying cognitive-behavioral therapy (CBT). Therapists help clients use their religious beliefs and concepts to address and change irrational ideas and behaviors, aiming to reduce symptoms of depression (Pearce et al., 2016).

Currently, there is a significant imperative to prioritize religion as a means of treatment for various forms of psychological disorders. According to Hamdan (2008), most, if not all, of the current treatments and counseling methods were developed in Western societies. As a result, they may need to align better with Islamic civilizations' cultural and ethical values. Thus, Muslim clients may prefer and benefit more from a psychotherapy approach that aligns with their religious beliefs. Many Muslims hold the belief that faith in Allah has the potential to cure most severe

ailments since it allows individuals to acknowledge that all outcomes, whether positive or negative, come from Allah. This was explained by Ibn Al-Jawzeeh, who stated that a believer who practices real faith can enter a world of goodness, contentment, and joy (Abd Alstar, 2009). If the primary objective of psychotherapy is psychological well-being, Islam can provide an appropriate solution as it instructs its followers to actively pursue psychological well-being. One could contend that individuals require faith in order to confront the obstacles encountered in life. Faith is a core tenet of Islam and is regarded as the primary determinant of psychological well-being, establishing a connection between humans and the cosmos and Allah, the creator. Allah states that hearts find happiness in remembering Him, as mentioned in the Qur'an (13:28).

Ultimately, IICBT aims to capitalize on the integration of CBT approaches to assist Muslim clients in cultivating resilience via their submission to Allah's divine plan and fostering self-assurance in their capacity for healing. By channeling this positive energy, people can reawaken their spiritual strength and better handle life's challenges. Psychotherapy based on Islamic principles is in synergy with widely acknowledged psychotherapy practices and principles. A primary and comprehensive emphasis on spirituality is essential to Islamic psychotherapy (Ismail, 2008). IICBT is known for promoting positive attitudes and actions, such as appreciation, compassion, forgiveness, acceptance, hope, and altruism. The aim is to cultivate a constructive, purpose-driven, and meaningful outlook that is in harmony with the client's beliefs and opposed to the experience of depression (Nayman, 2021).

There is 5th hypothesis of the study was “At post test level after the application of Islamic integrated Cognitive Behavior Therapy women suffering from polycystic ovary syndrome scores high on Conner Davidson Resilience Scale-Urdu. The result of (Table#24) elucidates that the application of IICBT in the experimental group led to an increase in resilience, which can assist participants in effectively managing the various problems associated with PCOS. Previous literature also supported these findings; although there has been little research on resilience and

IICBT, Yang et al. (2012) found that cognitive behavioral therapy (CBT) improved people's emotional and mental capacities to deal with adversity, which in turn helped them deal with the after-effects of their illness and any anxiety that caused by it. In understanding the observed finding, it should be noted that therapies such as II-CBT are primarily based on promoting psychological tolerance to endure psychological distress, which can have a substantial effect on boosting the person's level of resilience. Indeed, promoting resilience is a primary area of emphasis within the framework of IICBT. Undoubtedly, the enhancement of resilience in IICBT is not solely attributable to the use of this approach during training; instead, it is achieved through the eradication of factors that diminish resilience (Dolcos et al., 2021) as the resiliency theory also focuses on the protective factors like acceptance, hardiness, hope, and optimism helps to foster the resilience of an individual in the Phase of adversity (Zauszniewski et al., 2010). The IICBT changes the state of negative questioning: Why Allah? Why me? This type of why questioning changed into the acceptance of Allah's Qadr and will, and questioning turned into dikhr, praises, and Salawat toward Allah and His Prophet (SAW). The proverb "double edges word" sword "can be used for pain and distress as it has both favorable and unfavorable consequences. By accepting Allah's Qadr, the human being feels close to their soul (Fitrah) and makes a strong bond with Allah (Spiritual contentment), which leads to decreased psycho-social distress that helps the human psyche strengthen his resilience to cope with painful situations. The Heart Soul model also supported the present finding that the spiritual distress experienced by individuals includes feelings of hopelessness regarding God's mercy, estrangement from Him, discontentment with one's destiny, ire, resentment, vindictiveness, envy, sorrow over past losses, apprehension regarding the future, distress over mortality and by developing the strong bond with Allah by changing the thinking pattern Allah is always with the people who show patience and by following the prophetic path helps an individual to lower the level of spiritual distress and strengthen the psyche of human beings to fight against adverse situations (Asadzandi, 2023).

The 6th hypothesis of the study was “There is significant differences on psycho-socio-spiritual distress and resilience between expiremental and control group at pre and post level. The result of (Tables#25, 26, 27, 28) indicated that in the expiremental group there is significant difference on psycho-socio-spiritual distress and resilience at pre and posttest level after the application of IICBT but in control group there is no significant difference at post test level. Recent literature also supports the finding; a study by Ahmed et al. (2023) found that IICBT significantly reduced symptoms of anxiety and depression among Muslim participants compared to standard CBT. The research indicated that the incorporation of Islamic practices and teachings helped participants feel more understood and supported, leading to improved therapeutic outcomes. Similarly, Al-Sheikh et al. (2024) reported that IICBT was effective in addressing PTSD and trauma-related symptoms, as the therapy's spiritual components provided additional layers of support and meaning. One of the key strengths of IICBT is its ability to address spiritual distress, which is often intertwined with psychological and social issues. Many Muslims experience distress not only from mental health challenges but also from a perceived disconnection from their faith. By incorporating Islamic spiritual practices, IICBT helps individuals reconnect with their faith and find meaning and purpose, which can be crucial for their overall well-being (Niazi et al., 2024). For example, therapeutic interventions that involve Quranic verses or Hadiths related to patience and perseverance can offer comfort and resilience in the face of adversity (Siddiqui et al., 2024).

Moreover, IICBT has been shown to improve social functioning by addressing issues related to identity and cultural integration. Muslim clients often face unique social challenges, including discrimination and cultural conflict, which can exacerbate psychological distress. IICBT's culturally tailored approach helps clients navigate these issues by reinforcing their sense of identity and belonging within both their religious and social contexts (Jamal et al., 2024).

The 7th and 8th hypotheses of the study were "younger women scores high on multidimensional distress inventory for polycystic ovary syndrome and low on conner Davidson resilience scale than elderly women suffering from polycystic ovarysyndrome. According to research findings, (Table#29) participants of the youngest age bracket (20-35 years) experience high levels of Multidimensional distress and low resilience. This could potentially be ascribed to the hazards to which these young females with PCOS were exposed, which hindered their ability to develop resilience; due to perceived infertility in the context of unmarried women and experiencing infertility after marriage, they experience stigma, discrimination, environmental stress, and psychological distress. Furthermore, these individuals were more susceptible to adopting harmful coping mechanisms, including anger, mistrust, bitterness, and substance misuse, due to their lack of elder adult support and encouragement (Sambu & Mhongo, 2019). Despite adversity, age-related increases in resilience were noted. Additionally, one exhibits resilience towards failure and can effectively regulate emotional distress. When people in their later years become psychologically resilient by developing the habit of facing challenging situations from young age. When confronted with challenges, older individuals can alter their perception of the situation, diminish the threat posed by stressful occurrences, limit their exposure to such events, diminish negative responses, preserve positive self-esteem and self-efficacy, and generate opportunities to reverse the detrimental impacts of stress which make them more resilient than younger people (Fontes, 2015; Mazhar, Malik & Javed, 2023).

The 9th and 10th hypotheses of the study were "married women scores high on multidimensional distress inventory and low on Connor Davidson Resilience scale that unmarried women. The results (Table#30) suggested that married women experience higher levels of Multidimensional distress and lower levels of resilience in comparison to unmarried women. It is often held that motherhood serves as a fulfillment for women, and the inability to conceive may lead to feelings of inadequacy. Infertility is characterized as the incapacity of a female individual

to achieve conception while engaging in unprotected sexual intercourse for a duration of six months to one year (Thummalachetty et al., 2017). Another significant challenge experienced by married women with Polycystic Ovary Syndrome (PCOS) is the difficulties encountered in the process of conceiving a child and managing pregnancy. Several physical anomalies can be attributed to mismanagement in the way of life. One of the conditions is characterized by an atypical release of thyroid hormone. Based on a research study, there exists a direct correlation between the existence of thyroid autoantibodies and the occurrence of miscarriage during pregnancy as well as preterm birth. Polycystic ovary syndrome (PCOS) is associated with the development of insulin resistance and hypothyroidism. In a study conducted by Sirmans and Pate (2013), it was shown that a significantly higher proportion of women diagnosed with polycystic ovary syndrome (PCOS) exhibited hypothyroidism, with a prevalence rate of 22.5%, compared to women without PCOS, where the prevalence rate was 8.75%. The presence of thyroid peroxidase antibodies has been demonstrated in 27% of women diagnosed with polycystic ovary syndrome (PCOS), in comparison to 8% of individuals in the control group. Bharali et al. (2022) conducted a study that revealed that a notable proportion of women in India who are experiencing childlessness, precisely 18%, are afflicted with Polycystic Ovary Syndrome (PCOS). When a woman experiences infertility, it can be a social and personal hardship. When this is combined with unsupportive family members and a lack of awareness of the condition, it can have a disastrous effect on the patient's self-life. In their study, Frank van Balen and Bos (2009) defined infertility's social and cultural implications into four overarching categories:

Community effects

Economic and in-law effects

Legal and familial elements

Religious and spiritual ramifications

In regions with little resources, the socio-psychological consequences of childlessness have a more significant impact than those of the more developed Western world.

In the Muslim world, Azghdy et al. (2014) examined the effects of infertility on women in Iran. The researchers identified various consequences, including instances of violence such as psychological and domestic physical violence. Additionally, they found that infertility often led to marital instability or uncertainty. Social isolation was another significant outcome, characterized by avoiding certain individuals or social events and self-imposed isolation from family and friends. Furthermore, the study revealed that infertile women experienced social exclusion and partial deprivation, as family members and relatives disregarded them. Lastly, the findings indicated a reduction in social interactions with infertile women, leading to their social alienation. According to a recent investigation conducted by Ali et al. (2023), it has been observed that infertile couples in Pakistan have several psychological challenges, including anxiety, despair, diminished self-esteem, instances of spousal and domestic violence, as well as feelings of isolation. Furthermore, these couples are confronted with the disapproval of their family members and the negative responses from society, resulting in their social stigmatization. There exists a direct correlation between infertility and the presence of social stigma (Abbasi, 2016). A study conducted in Ghana revealed a negative correlation between the literacy level of women and their experience of stigma and psychological stress associated with childlessness. Therefore, it is evident that infertility can lead to various socio-cultural implications, such as disapproval from in-laws, societal stigma, psychological pain, domestic violence, and social isolation (Khan et al., 2021). According to Bhutta et al. (2017), within the context of Islam, it is believed that a man should select a spouse who can carry numerous offspring. This is supposed to enable the man to enhance his numerical representation on the day of resurrection. Women who are unable to conceive children are sometimes referred to as "barren." Childbearing in Pakistani society, particularly in semi-urban and rural regions, holds significant social significance and determines

one's social identity. It has been previously said that the societal perception of a woman's fulfillment is contingent upon her ability to conceive and bear a child. Consequently, if a woman is unable to fulfill this expectation, she is often labeled as "barren" and referred to as "brand." The societal image of a woman's childlessness is influenced by several social entities such as the family, neighborhood, relatives, and community (Abu-Rabia, 2013). The necessity of offspring is linked to the societal expectations placed upon women, and their failure to meet these prescribed roles results in their mistreatment by both their in-laws and the broader community (Joshi, 2008).

The 11 and 12 hypotheses of the study were "Working women suffering from polycystic ovary syndrome scores high low on multidimensional inventory and high on Conner Davidson resilience scale that non-working women. The results of the study (Table#31 & 32) also revealed that women who are employed and have higher level of education experience lower levels of Multidimensional distress and high resilience levels. Previous literature also indicates the same results that marital satisfaction among homemakers was lower compared to employed women suffering from PCOS. Furthermore, it was shown that infertile women with higher levels of formal education reported better levels of marital happiness compared to their counterparts with lower levels of academic education (Abubakar, 2021). Patients in the low-to-medium income and education groups exhibited greater insulin resistance, an increased waist circumference, and elevated BMI compared to those with higher family income and education levels (Rubin et al., 2018). It could be that low education is linked with unawareness of the potential risk of PCOS and healthy lifestyles; a lack of sedatives lifestyle leads to obesity and weight gain among women, which can imbalance the insulin proportion in the body will lead to PCOS (Cao et al., 2023).

In a study conducted by Lemos et al. (2015), the impact of sex, age, and family income on the quality of life (QoL) of patients with chronic renal disease was examined. The findings revealed that family income played a significant role in determining QoL, with sex and age also exerting some influence. The authors conducted their analyses on the quality of life (QoL) in

patients with polycystic ovary syndrome (PCOS) and found that patients who saw their socioeconomic status as satisfactory reported higher levels of overall QoL. In contrast to professionally active respondents, women who did not engage in such activity exhibited a comparatively diminished perception of their overall health.

The 13th and 14th hypothesis were "women suffering from polycystic ovary syndrome belong to lower socioeconomic class score high on multidimensional distress inventory and low on Conner Davidson resilience scale than the women belong to middlie and higher socioeconomic class. To test these hypotheses ANOVA was applied to the data. The findings (Tables #33) suggested that women from lower socioeconomic status experience high psycho-socio-spiritual distress and low resilience levels as compared to those from middle and higher socioeconomic status. The previous rrsearches also indicated that a potential correlation between PCOS and its constituents and socioeconomic status (SES) could provide insights into the environmental factors that contribute to the onset of this disorder. Scholarly investigations have established a correlation between socioeconomic status (SES) and the propensity for detrimental health behaviors, such as smoking, insufficient physical activity, and unhealthy dietary choices (Graham, 2006). Specifically, low SES has been linked to obesity among women (Thurston et al., 2005). Research has also indicated that obesity and smoking can worsen insulin resistance (Cupisti et al., 2010). Insulin resistance is a condition that is closely associated with PCOS and contributes to its pathogenesis (Azziz et al., 2016). Moreover, there is substantial evidence linking cardiovascular disease (CVD), metabolic syndrome, and its various components to a low socioeconomic status (Havranek et al., 2015).

The higher incidence of anovulation among patients with low to moderate family income and low education level likely resulted from variations in adipose mass and distribution and insensitivity to insulin. This indicates that socioeconomic status does impact ovulation in women with polycystic ovary syndrome (PCOS) due to its influence on insulin secretion and sensitivity.

These changes are primarily caused by increased abdominal fat quantity rather than weight gain. Di Fede et al. (2009) found that women from the lowest socioeconomic class, as measured by mean family income, exhibited the strongest correlation with waist circumference, a highly responsive indicator of abdominal obesity.

Generally, a strong positive correlation was observed between family income and education with PCOS prevalence. Education appeared to be a more significant factor in determining their ovulation status than income. Thus, abdominal adiposity contributes to anovulation in a subset of patients with PCOS, which may be influenced by environmental factors such as low socioeconomic status. Patients with polycystic ovary syndrome (PCOS) who come from lower-income families and have a predominantly low level of education may be less cognizant of or less informed about the significance of their lifestyle choices that can enhance or control the risk associated with PCOS so sedentary habits worsens the situation or illness severity (Ombelet et al., 2008).

Overall the results indicated the significant difference and supported that Islamic integrated Cognitive Behavioral therapy is effective to manage the psycho-socio-spiritual distress and enhance resilience among PCOS women. However it was not a randomized control trial and many of the confounding variables were there to affect the result of the study. Pre-test post test research designs are commonly utilized to evaluate interventions while these designs provide valuable insights; they come with inherent methodological limitations and are susceptible to various confounding variables that can impact the validity and reliability of the results. Understanding these limitations and potential confounders is essential for accurately interpreting research findings and guiding future studies.

Selection bias is critical concern in pre-post quasi-experimental studies. Participants in such studies are often self-selected or chosen based on non-random criteria, which can introduce

systematic differences between those who choose to participate and those who do not (Azziz et al., 2023). This bias can affect the generalizability of the study findings. For instance, individuals who are highly motivated to improve their PCOS symptoms might be more likely to participate in a study and might also experience greater improvements due to their increased motivation and engagement. This selection bias can skew results and limit the ability to generalize findings to the broader population of individuals with PCOS, who may not share the same characteristics or levels of motivation.

The lack of randomization pre test post test experimental designs further exacerbates the issue of selection bias. Randomization is a key methodological feature that helps ensure that participants are allocated to intervention and control groups in a way that minimizes pre-existing differences between the groups. Without randomization, there is no control over how participants are assigned, which increases the risk that baseline characteristics could differ between the intervention and comparison groups. This lack of control can lead to confounding variables influencing the results, as any differences observed may be due to these pre-existing characteristics rather than the intervention itself (Hollon et al., 2022).

The short duration of follow-up in many pre -test post test expiremental studies also limits the ability to assess the long-term effects of the intervention. Many studies focus on short-term outcomes, which may not capture the sustained benefits or potential long-term side effects of the intervention (Teede et al., 2022). For instance, a study examining the impact of a new medication for PCOS might show initial improvements in symptoms, but without long-term follow-up, it is unclear whether these improvements are maintained over time or if there are any delayed adverse effects. Short follow-up periods can lead to incomplete assessments of the intervention's true impact on PCOS and may result in an overestimation of its effectiveness.

In the present study the women age ranges was 18-45. Age is a significant confounder, as PCOS manifests differently across various age groups. Younger women may experience more pronounced reproductive symptoms, while older women might face additional metabolic challenges (Goodarzi et al., 2023). Without accounting for age, it is difficult to determine whether observed changes in PCOS symptoms are due to the intervention or are influenced by age-related factors. Age can impact both the severity of PCOS symptoms and the response to treatment, making it essential to control for this variable in research studies.

Body mass index (BMI) is another critical confounder in PCOS research. Obesity is commonly associated with exacerbated PCOS symptoms and metabolic disturbances. Changes in BMI during the study period can significantly impact the outcomes, making it challenging to isolate the effects of the intervention from those of weight changes (March et al., 2022). For instance, a lifestyle intervention aimed at weight loss might show improvements in PCOS symptoms, but these improvements could be attributed to changes in BMI rather than the intervention itself. Controlling for BMI or including it as a variable in the analysis is crucial to accurately assess the impact of the intervention on PCOS symptoms.

Comorbid conditions such as diabetes, hypertension, and mental health disorders can also act as confounding variables in PCOS research. These conditions can interact with PCOS symptoms and influence the overall health outcomes, making it difficult to attribute changes specifically to the PCOS intervention (Azziz et al., 2023). For example, improvements in glycemic control due to a dietary intervention might also impact PCOS symptoms, but the extent to which each factor contributes to the observed changes may be unclear. Researchers need to account for comorbid conditions to ensure that the effects observed are truly due to the PCOS intervention and not influenced by other health issues.

Lifestyle factors, including diet, physical activity, and stress levels, are additional potential confounders. Changes in these factors can influence PCOS symptoms and outcomes independently of the intervention being studied. For instance, participants may alter their physical activity levels or dietary habits during the study period, which can impact PCOS symptoms and confound the results (Teede et al., 2022). Researchers should carefully monitor and control for lifestyle factors to ensure that observed changes are attributable to the intervention rather than to variations in participants' daily habits.

In the study women were selected who were taking medicine from last 6 months. Medication use is another important confounding variable. Many individuals with PCOS take concurrent medications or supplements to manage their symptoms or related conditions. The use of these medications can influence the outcomes of the study and complicate the interpretation of results. For example, a participant taking medication for insulin resistance may experience changes in PCOS symptoms that are not solely attributable to the intervention being studied (Goodarzi et al., 2023). Researchers should account for medication use and consider its potential impact on the study's outcomes.

The sample was consisted of married and unmarried women and married woen were struggling with infertitlty. Infertility is a significant confounding variable in pre-post quasi-experimental research on Polycystic Ovary Syndrome (PCOS) due to its intricate relationship with the condition and its potential impact on study outcomes. PCOS is a leading cause of infertility, and the presence of infertility in participants can introduce several complexities into the research, influencing both the intervention's effectiveness and the interpretation of results.

Infertility can impact PCOS research in multiple ways. First, the emotional and psychological stress associated with infertility can affect participants' responses to interventions. Stress and anxiety are known to exacerbate PCOS symptoms and can influence how participants

perceive and report their symptoms. For instance, women experiencing infertility may have heightened anxiety or depression, which could interact with the intervention's effects and potentially skew the results (March et al., 2022). If the research does not account for these emotional factors, it may lead to an overestimation or underestimation of the intervention's impact.

Moreover, infertility treatments themselves can act as confounding variables. Many women with PCOS undergoing fertility treatments might use medications or therapies that alter their hormonal profiles and metabolic conditions. These treatments, such as ovulation-inducing drugs or assisted reproductive technologies, can affect PCOS symptoms independently of the primary intervention being studied. For example, if a study is evaluating the effects of a new dietary intervention on PCOS symptoms, the concurrent use of fertility treatments could complicate the assessment of the dietary intervention's effectiveness (Azziz et al., 2023). This interaction can obscure the true impact of the intervention on PCOS and make it challenging to isolate its specific effects.

The stage of infertility treatment or management can also introduce variability into the research. Participants at different stages of infertility treatment—such as those just beginning treatment versus those who have been undergoing treatment for a longer period—may have different responses to the intervention being studied. The duration and type of fertility treatments can vary widely, and these differences can affect the outcomes of the research (Teede et al., 2022). For instance, women who have been on fertility treatments for an extended period might experience different symptom profiles compared to those who are newly diagnosed or in the early stages of treatment. Failure to account for these variations can lead to inconsistencies in the research findings and affect the study's overall validity. Furthermore, the presence of infertility can influence participants' adherence to and engagement with the intervention. Women dealing

with infertility might have varying levels of commitment to an intervention based on their expectations for fertility outcomes and their overall health goals. For example, if an intervention involves significant lifestyle changes, such as dietary modifications or increased physical activity, women who are actively seeking fertility solutions might prioritize these changes differently from those not focused on fertility. This variation in adherence and engagement can affect the results of the intervention and make it challenging to determine its true impact on PCOS symptoms (Goodarzi et al., 2023).

Infertility-related factors, such as the presence of additional reproductive or metabolic disorders, can also confound the results. Women with PCOS and infertility might have comorbid conditions like endometriosis or insulin resistance, which can independently affect their health outcomes and interactions with the intervention. These additional conditions can complicate the analysis by introducing further variability in symptom presentation and response to treatment. Researchers need to consider these comorbid conditions when evaluating the effects of an intervention on PCOS symptoms to avoid conflating the effects of the intervention with those of the comorbid conditions (Cohen et al., 2023).

This research highlights the effectiveness of IICBT in managing PCOS-related distress and enhancing resilience. It adds to the literature on PCOS in Pakistani women and suggests that, while PCOS is not a taboo subject, there is a need for increased awareness and consultation. The findings underscore the importance of addressing both psychological and socio-economic factors in managing PCOS and offer insights into improving symptom management and support for affected women.

Conducting a therapeutic study on Polycystic Ovary Syndrome (PCOS) using Islamic Integrated Cognitive Behavioral Therapy (IICBT) has been a profoundly illuminating experience for the researcher. The researcher journey through this research has involved navigating complex

intersections of culture, spirituality, and psychology, and it has offered valuable insights into the ways these elements can enhance therapeutic practices.

From researcher's ndigenous perspective, health and wellness are deeply intertwined with cultural and spiritual dimensions. This understanding shaped researcher approach to integrating Islamic principles into cognitive behavioral therapy. Researcher recognized that for many participants, addressing PCOS effectively requires more than just medical or psychological intervention—it demands a holistic approach that respects and incorporates their spiritual and cultural values.

One of the most significant aspects of this study understood how Islamic teachings and practices could be integrated into CBT in a way that felt authentic and respectful. Resaercher background taught me the importance of aligning therapeutic practices with participants' cultural and spiritual beliefs to foster a more meaningful and engaging treatment experience. This integration was not merely a methodological adjustment but a deeply personal endeavor to connect therapeutic practices with participants' lived experiences and values.

However, this process was not without its challenges. Ensuring that the Islamic components of the therapy were applied correctly required ongoing dialogue with Islamic scholars and community leaders. Resaecher role involved continuously learning and adapting to ensure that the integration of religious principles was both effective and respectful. This challenge underscored the importance of collaboration and humility in research. It was a reminder that even as a researcher, the perspectives are limited and engaging with experts from different backgrounds is essential for ensuring the success and cultural sensitivity of the study.

Participant feedback revealed that incorporating Islamic values into the therapeutic approach had a significant positive impact. Many participants reported feeling a stronger

connection to the therapy when it included elements such as Quranic reflections and prayer. This positive response reinforced the value of culturally integrated approaches, demonstrating that therapy is more effective when it resonates with individuals' cultural and spiritual identities. It highlighted the need for therapeutic practices that are not only scientifically sound but also culturally and spiritually attuned.

Reflecting on this experience has deepened researcher understanding of the intersectionality between cultural values and therapeutic practices. It has reaffirmed researcher belief in the importance of culturally responsive research and the need for ongoing reflection and adaptability in the research process. Moving forward, researcher is committed to continuing to integrate cultural and spiritual dimensions into therapeutic practices and to seeking out diverse perspectives to enrich future research endeavors.

This journey has also emphasized the need for continuous dialogue with community stakeholders and cultural experts. Such collaboration is crucial for developing therapeutic interventions that are both respectful and effective. Researcher experience has taught that the value of cultural humility and the importance of remaining open to learning and growth throughout the research process. By bridging cultural and spiritual dimensions in therapy, researcher aim to contribute to more inclusive and effective interventions that honor the diverse experiences of individuals.

`Implication of the present Study

1. The Multidimensional Inventory for polycystic Ovary Syndrome-Urdu (MDDI-PCOS-U) is one of the pioneering attempts towards addressing the distress in psycho-socio-spiritual domain of women suffering from Polycystic Ovary Syndrome. It will help the therapist, mental health practitioner, psychologist to aceess the level of distress among PCOS women to make better matangaent plan according to the level of distress.
2. This study investigates the relationship between psycho-socio-spiritual distress and resilience among women with PCOS. This will provide important knowledge about resilience and its relationship with distress, which is the main determinant of managing stress and enhancing the mental health of PCOS women.
3. On the national level, there is a dearth of literature about Psycho-socio-spiritual distress and resilience linked to PCOS, so that this research will impart valuable knowledge to existing liter literature. The literature will discuss PCOS and its consequences and effects on women's mental health.
4. The study will be beneficial for the development of program focusing on women reproductive health, its importance and risk factor accosiated with poor reproductive health among the women at various levels like school, college, universities and workplaces. Different seminars and workshops can be conducted by the help of teachers and workplace managers.
5. The study will be beneficial for the policymakers and government to focus on the importance of the management of PCOS associated distress among women because women's mental health is very important for the family but also for the advancement of the nation. A new subject and course could be introduced on women's reproductive health in every degree program to promote the importance of women's mental health, as well as the importance of therapy for the management of distress.

6. The study will be beneficial for mental health practitioners, especially psychologists, to develop indigenous treatment plans for PCOS women according to the severity of distress level. It will also open new horizon for the psychologist to investigate the effectiveness of the IICBT on different psychological problems except distress. It will also open new horizons for psychologists to investigate the effectiveness of IICBT on different medical illnesses like cancer, fibroids, cardiovascular disease, and neurological disease.
7. The present research provides a therapeutic direction for the treatment of psycho-socio-spiritual distress in patients suffering from polycystic ovary syndrome with the help of IICBT.
8. It also reinforces the need to pay close attention to a person's faith and utilization of spirituality in treatment planning and implementation.
9. In Pakistan, most people belong to the Muslim religion; therefore, religious practices effectively educate and guide the patients because they have a basic orientation about the faith and its role in daily life functioning. In this regard, Islam-based interventions can also work effectively, but the given interventions are targeted and purposeful.
10. Clinicians can adopt Islamic-integrated CBT into diverse settings by incorporating Islamic principles into the therapeutic process, such as using Quranic teachings to challenge irrational thoughts and promote positive coping strategies. They can incorporate Islamic practices, like regular prayer and mindfulness from an Islamic perspective, to enhance therapeutic outcomes and support clients' spiritual needs. Adapting CBT techniques to include culturally relevant examples and ethical considerations from Islamic teachings can increase engagement and effectiveness. Additionally, clinicians should respect and understand the unique cultural and religious backgrounds of their clients to tailor interventions appropriately. This approach ensures that therapy is both culturally sensitive and spiritually supportive, leading to a more holistic treatment experience.

11. Policy-making informed by Islamic-integrated CBT research can guide the development of culturally and religiously sensitive mental health interventions. By incorporating findings from such research, policymakers can promote the inclusion of Islamic principles in therapeutic practices, ensuring that mental health services are accessible and relevant to Muslim populations. Policies could advocate for the training of mental health professionals in Islamic-integrated CBT techniques, fostering a workforce equipped to address diverse client needs. Additionally, integrating Islamic values into mental health frameworks can support the creation of community-based programs that align with clients' cultural and spiritual beliefs. Evaluating the effectiveness of these interventions through ongoing research can inform continuous improvements and adaptations in policy. Ultimately, such policies can enhance mental health outcomes by ensuring that interventions are both effective and culturally competent.

Limitation and Suggestion

1. The Psychosociospiritual Inventory for polycystic Ovary Syndrome-Urdu (MDDI-PCOS-U) is developed in Urdu language for the Muslim women living in Pakistan that is the limitation of the study, in future the study should be conducted in different countries with the Muslim population knowing Urdu language to vildate the newly developed inventory. Mreover in the future, the inventory can be translated into different languages to enhance its wider use.
2. The invenotory only developed for Muslim women that are suffering fro Polycystic Ovry Syndrome, in future that inventory could be adapted according to other religion to enhance its wider use.
3. The current study's sample was only limited to educated women for ease and accessibility which is a limitation. A larger sample size with representation of women from rural areas is recommended for future studies to assess Psycho-Socio-Spiritual Distress among PCOS women more widely.

4. The sampling technique used to select respondents was purposive sampling, which limits the generalizability of the study's findings to the overall study population.
5. The data was obtained exclusively from two cities (Islamabad and Rawalpindi), restricting its external generalizability. To improve its generalizability, future studies should be undertaken in more than two places.
6. Randomization is a key methodological element that distinguishes more rigorous experimental designs from quasi-experimental designs, including pre-post quasi-experimental designs. In pre-post quasi-experimental designs, participants are assessed before and after an intervention without random assignment to groups, which limits the ability to control for confounding variables and biases. The absence of randomization means that any observed effects could be influenced by pre-existing differences between participants rather than the intervention itself. This lack of random assignment reduces the internal validity of the study, making it challenging to establish causality. Consequently, while pre-post quasi-experimental designs can provide valuable insights, their findings are generally considered less robust compared to randomized controlled trials (RCTs).
7. PCOS is a dynamic disorder that poses challenges for women in effectively managing their symptoms as time progresses. Furthermore, the treatments administered to the woman will vary depending on her desire to conceive or not. Healthcare practitioners should be mindful that symptoms of PCOS and the required therapies will vary throughout a person's life. It is imperative for women with PCOS to regularly consult their healthcare provider to manage their disease and make any treatment adjustments effectively.
8. Additional meticulously planned clinical trials are required in the future to investigate the impact of combining cognitive-behavioral therapy (CBT) with lifestyle modification in patients with polycystic ovary syndrome (PCOS). Extended periods of observation are necessary to assess the enduring impacts of Cognitive Behavioral Therapy (CBT) on individuals diagnosed with Polycystic Ovary Syndrome (PCOS).

9. The study variables were objectively assessed using established psychological instruments. Future research might prioritize employing qualitative data gathering and analysis techniques to produce more comprehensive, intricate, and culturally specific findings about Pakistani culture. This strategy has the potential to yield additional intriguing findings in psychological studies.
10. Specific workshops related to IICBT can be arranged for therapists, already involved with the cognitive-behavioral approach in their clinical practice. These workshops will familiarize them with the spiritual dimensions of Islam, its effects on the Muslim population, and procedures to integrate Islamic teachings with Western therapeutic models. It will help the mental health practitioner, therapists, and counselors to enhance their ability to manage effectively their clients cognitive, behavioral, and affective domains.
11. Many studies have combined Islamic concepts with CBT. For example, Asghar et al. (2021) in Pakistan presented the cognitive-behavioral protocol with an Islamic approach. A review study is needed to collect and classify the components and techniques of these protocols. Further, a meta-analytical study can compare the effectiveness of these protocols and introduce more efficient protocols, explaining the reasons for their effectiveness.
12. A significant ethical limitation of this study is that the control group did not receive any form of beneficial intervention. This omission raises considerable ethical concerns, as participants in the control group were deprived of potential enhancements to their condition or well-being that might have been afforded by an intervention. In clinical research, it is imperative to ensure that all participants receive some level of care or intervention that is deemed beneficial or at least comparable to standard treatment practices. The lack of any intervention for the control group may pose ethical issues related to the fairness and welfare of participants, who could have been unjustly denied a potentially advantageous treatment. To adhere to ethical standards, future research should

incorporate a standard care or placebo group to ensure that all participants receive a level of care that could positively impact their condition.

13. To address these methodological limitations and confounding variables, researchers should consider several approaches. Incorporating a control group, whenever feasible, can help isolate the effects of the intervention and improve the validity of the study findings. Randomization of participants can minimize selection bias and ensure that baseline characteristics are evenly distributed between groups. Longer follow-up periods can provide a more comprehensive assessment of the intervention's long-term effects and potential side effects.
14. Additionally, controlling for confounding variables such as age, BMI, comorbid conditions, lifestyle factors, and medication use is essential for accurate interpretation of results. Researchers should use appropriate statistical methods to account for these variables and ensure that their effects are considered when assessing the impact of the intervention. By addressing these limitations and potential confounders, researchers can enhance the validity and reliability of pre-post quasi-experimental studies on PCOS and contribute to a better understanding of effective interventions for managing the condition.
15. To mitigate the confounding effects of infertility in PCOS pre-post research, several strategies can be employed. First, researchers should carefully screen participants for infertility and consider its potential impact on the study's outcomes. By collecting detailed information about the stage of infertility treatment and any concurrent medications or therapies, researchers can better account for these factors in their analyses. Additionally, including measures of psychological well-being and stress can help control for the emotional impacts of infertility on study outcomes. Employing a randomized controlled trial design, where feasible, can also help isolate the effects of the intervention from those of infertility. Longitudinal studies with extended follow-up periods can further help in

understanding the sustained effects of the intervention and the long-term implications of infertility on PCOS management.

16. In order to gain a more comprehensive understanding of the effectiveness of therapy for PCOS, it would be beneficial to include participants who are currently fertile or who have previously been parents. Including women at different reproductive stages can provide valuable insights into how therapy impacts various life stages and reproductive statuses. Women who are currently trying to conceive or those who have completed their families might experience different outcomes or side effects from the therapy. By incorporating both fertile and parental women, the study can better assess the therapy's effectiveness across diverse reproductive contexts, ensuring that findings are more applicable to the broader population of women with PCOS. This approach will also help address specific needs related to fertility, pregnancy, and long-term reproductive health, ultimately providing a more nuanced understanding of the therapy's benefits and limitations.

Conclusion

The objective of the present study was to investigate the effectiveness of Islamic Integrated Cognitive Behavioral Therapy on psychosocio-spiritual distress and resilience among women with polycystic ovary syndrome. The study was conducted in three phases. Phase I aimed to develop a reliable and valid scale for assessing Multidimensional Distress, ensuring robust psychometric properties. Phase II involved pilot testing to preliminarily evaluate the newly developed scale and other research instruments. Phase III focused on assessing the effectiveness of Islamic Integrated Cognitive Behavioral Therapy (IICBT) on psycho-socio-spiritual distress and resilience among women with Polycystic Ovary Syndrome (PCOS).

The study included 40 women diagnosed with PCOS, divided into an experimental group (20 women) and a control group (20 women). The experimental group, which consisted of 10

unmarried and 10 married women, received ten sessions of IICBT. The effectiveness of the therapy was measured using the Multidimensional Distress-Urdu and Conner-Davidson Resilience Scale-Urdu through pre- and post-assessments.

The study found a strong negative correlation between multidimensional distress and resilience, with married women experiencing higher distress and lower resilience than unmarried women. Additionally, women from lower socioeconomic backgrounds exhibited higher distress and lower resilience compared to those from higher socioeconomic backgrounds.

Results demonstrated that IICBT significantly reduced distress and increased resilience in the experimental group as compared to the control group, which showed no significant changes. Both married and unmarried women in the experimental group showed reduction in distress level and increased in the resilience level after the application of Islamic Integrated Cognitive Behavioral Therapy.

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APPENDICES

اجازت نامہ

محترمہ میں انٹر نیشنل اسلامک یونیورسٹی کے ماہر نفسیات کی طالبہ ہوں . موجودہ مطالعہ پولی سسٹک اووری سنڈروم پر جاری تحقیق کا ایک حصہ ہے جو کہ انٹر نیشنل اسلامک یونیورسٹی کے زیرِ نگرانی عمل میں لائی جا رہی ہے۔ آپ کی دی گئی معلومات صرف اور صرف تعلیمی مقاصد کے لئے زیر عمل لائیں جائیں گیں۔ آپ میری اس تحقیق میں اپنی مرضی سے شامل ہو سکتے ہیں اور کسی وقت بھی نکل سکتے ہیں.آپ کو یقین دلایا جاتا ھے کہ آپ کی معلو مات خفیہ رکھی جائیں گی.

شکریہ

ذاتی کوائف

1.نام

2. آپ کی عمرکتنی ہے _____

ا. 18-25 ب. 26-35

3. آپ کی تعلیم کتنی ہے؟

ا. پرائمری ب. مڈل ج. ثانوی د. اعلی تعلیم

4. آپ کا پیشہ کیا ہے؟

ا.نوکری ب.خانہ داری

5 - آپ کی ماہانہ آمدن کتنی ہے_____

6 - آپ کا خاندانی نظام کونسا ہے؟

انفرادی مشترکہ

7.وزن

8.قد

9. کیا آپ کے خاندان میں کوئی عورت اس مرض کا شکار ہے

ہاں نہیں

10.کیا آپ کی والدہ اس مرض کا شکار ہیں

ہاں نہیں

Annexure C

Focused group discussion

1. What is spirituality?
2. Is there any difference between religion and spirituality?
3. According to you what is spiritual distress?
4. In life, ever you struggle from spiritual distress?
5. What was your feeling when you were going from difficult times?
6. What are the possible causes of spiritual distress?
7. IS there any cure of spiritual distress?

Annexure D

انٹرویو گائڈ

1. کیا آپ اپنی بیماری کے بارے میں کچھ بتائیں گی؟
2. آپکو کیا لگتا ہے کہ یہ بیماری کس وجہ سے بڑھ رہی ہے؟
3. اس بیماری کے بعد آپ اپنی شخصیت میں کوئی تبدیلی محسوس کرتی ہیں؟
4. آپ کو اس بیماری کے بعد کون سی نفسیاتی و جسمانی مسائل کا سامنا کرنا پڑ رہا ہے؟
5. اس سماری کے بعد آپ اپنے تعلق کو اللہ کے ساتھ کیسا پاتی ہے؟
6. کیا آپ کو لگتا ہے کہ آپ کی سماجی سرگرمیاں متاثر ہوئی ہیں؟
7. اس بیماری کو کرٹرول کرنے کے لیے آپ کن کن چیزوں کا خیال کرتی ہیں؟
8. آپکے گھر والے اس بیماری کو کیسے دیکھتے ہیں؟
9. کیا آپ اپنے معالج کے بتائے گئے طریقہ کار پر عمل کرتی ہیں؟
10. اس بیماری کے ساتھ آپ اپنے روزمرہ کاموں کو کیسے سرانجام دیتی ہیں؟
11. کبھی اس بیماری کی وجہ سے معاشرے میں شرمندگی کا سامنا کرنا پڑا ہے؟
12. اس بیماری نے آپکے تعلقات کو کیسے متاثر کیا؟
13. اس بیماری کے بعد آپ اپنی زندگی کو کیسے دیکھتی ہیں؟
14. کیا یہ بیماری آپ کے مستقبل کو متاثر کر سکتی ہے؟
15. کبھی اس بیماری کے علاج کے لیے روحانی علاج کے خیال کو تقویت دی ہے؟
16. آپ کے مطابق اس بیماری کو کیسے بڑھنے سے روکا جا سکتا ہے

Annexure E

Permisson from Author for using Scales and Manual

Shifa Tameer-e-Millat University

Wardah Ishfaq <wardah.dcp@stmu.edu.pk>

MHI

1 message

Mussarat Jabeen Khan Lecturer <mussarat.jabeen@iiu.edu.pk> Fri, Jul 14, 2023 at 11:03 PM
To: "wardah.dcp@stmu.edu.pk" <wardah.dcp@stmu.edu.pk>

Regards
Dr. Mussarat Jabeen Khan
Lecturer
Department of Psychology
International Islamic University Islamabad

3 attachments

001.JPG
1797K

002.JPG
1742K

PJPR 2015.pdf
122K

Shifa Tameer-e-Millat University

Wardah Ishfaq <wardah.dcp@stmu.edu.pk>

Request for translated version (Urdu) of Connor Davidson Resilience Scale

3 messages

Wardah Ishfaq <wardah.dcp@stmu.edu.pk> Sat, Apr 29, 2023 at 9:55 AM
To: dr.sajida@fjwu.edu.pk

Assalam o Alaikum,
Hope you are doing well. I am Wardah Ishfaq, PhD scholar (IIUI) and working as a Lecturer/Clinical Psychologist in Shifa Tameer-e-Millat University Islamabad. I require the Urdu-version of Connor Davidson Resilience Scale for my PhD research work. I shall be very thankful for your kindness. I am looking forward to your cooperation.

--

Kinds & Regards.....

Wardah Ishfaq
Lecturer/Clinical Psychologist
Incharge Administration
Member Exam committee
Focal person of Social Media
Department of clinical Psychology
Shifa Tameer-e-Millat University,
Park Road Campus, Islamabad

Dr Sajida Naz <dr.sajida@fjwu.edu.pk> Mon, Jan 8, 2024 at 3:53 PM
To: Wardah Ishfaq <wardah.dcp@stmu.edu.pk>

extremely sorry for late reply as I am seeing it very late do u still need it.

[Quoted text hidden]

[Quoted text hidden]

Shifa Tameer-e-Millat University
شفا تعمیرِ ملّت یونیورسٹی

Pitras Bukhari Road, Sector H-8/4
Islamabad, Pakistan
www.stmu.edu.pk

Please consider the environment before printing this email

--

Best Wishes
Sajida

Shifa Tameer-e-Millat University

Wardah Ishfaq <wardah.dcp@stmu.edu.pk>

Request for translated version (Urdu) of Connor Davidson Resilience Scale

Dr Sajida Naz <dr.sajida@fjwu.edu.pk> Mon, Jan 8, 2024 at 3:54 PM
To: Wardah Ishfaq <wardah.dcp@stmu.edu.pk>

On Sat, Apr 29, 2023 at 9:53 AM Wardah Ishfaq <wardah.dcp@stmu.edu.pk> wrote:

[Quoted text hidden]

Shifa Tameer-e-Millat University
شفا تعمیرِ ملّت یونیورسٹی

Pitras Bukhari Road, Sector H-8/4
Islamabad, Pakistan
www.stmu.edu.pk

[Quoted text hidden]

Connor-Davidson Resilience Scale (URDU VERSION) (1).pdf
321K

Shifa Tameer-e-Millat University

Wardah Ishfaq <wardah.dcp@stmu.edu.pk>

Permission require to use Islamic Integrated Cognitive Behavioral Therapy Manual

3 messages

Wardah Ishfaq <wardah.dcp@stmu.edu.pk> Mon, Feb 20, 2023 at 9:02 PM
To: zuraidaas@ummc.edu.my

Assalam o Alaikum
My name is Wardah Ishfaq, I am from Pakistan and working as a clinical psychologist / lecturer at Shifa Tameer e Millat University Islamabad, Pakistan . I am doing my PhD research work at International Islamic University Islamabad . My work is to explore the effectiveness of Islamic Integrated CBT on psychosocial distress among PCOS women, so I need your humble permission to use the IICBT manual. I will wait for your humble response and in future I also require your help in the implementation of therapy and its steps.

--
Kinds & Regards.....
Wardah Ishfaq
Lecturer/Clinical Psychologist
Incharge Administration
Member Exam committee
Focal person of Social Media
Department of clinical Psychology
Shifa Tameer-e-Millat University,
Park Road Campus, Islamabad

Zuraida AHMAD SABKI <zuraidasabki@gmail.com> Tue, Feb 21, 2023 at 10:45 AM
To: Wardah Ishfaq <wardah.dcp@stmu.edu.pk>

Assalamualaikum,

Miss Wardah,

Alhamdulillah and thank you for your interest to apply this method in your PhD work.

On behalf of the other authors, I grant the permission to use the Workbook and May Allah SWT guides us, InsyaAllah.

Zuraida

[Quoted text hidden]
[Quoted text hidden]

Shifa Tameer-e-Millat University

Wardah Ishfaq <wardah.dcp@stmu.edu.pk>

Re: Require permission to use the Islamic Integrated CBT Manual Urdu Version

1 message

shahzad hussain <shahzaadhussain@hotmail.com> Wed, Nov 15, 2023 at 10:18 AM
To: Wardah Ishfaq <wardah.dcp@stmu.edu.pk>

Wardah Ishfaq – you have permission for conducting your research by using IICBT manual in Urdu on Religious Cognitive Behavior Therapy. The only requirement is that you e-mail me your publish research when it is complete. Please feel free to contact me for any further assistance.

Shahzad Hussain
Clinical Psychologist
DHQ Hospital Jhelum

From: Wardah Ishfaq <wardah.dcp@stmu.edu.pk>
Sent: Tuesday, November 14, 2023 7:48 PM
To: shahzad hussain <shahzaadhussain@hotmail.com>
Subject: Require permission to use the Islamic Integrated CBT Manual Urdu Version

Respected Sir
My name is Wardah Ishfaq, I am from Pakistan and working as a clinical psychologist / lecturer at Shifa Tameer e Millat University Islamabad, Pakistan . I am doing my PhD research work at International Islamic University Islamabad . My work is to explore the effectiveness of Islamic Integrated CBT on psychosocial distress among PCOS women, so I need your humble permission to use the IICBT manual, Urdu Version as I found the manual translated by you in Urdu language. I will wait for your humble response and in future I also require your help in the implementation of therapy and its steps.

--
Kinds & Regards.....
Wardah Ishfaq
Lecturer/Clinical Psychologist
Incharge Administration
Member Exam committee
Focal person of Social Media
Department of clinical Psychology
Shifa Tameer-e-Millat University,
Park Road Campus, Islamabad

Shifa Tameer-e-Millat University

Wardah Ishfaq <wardah.dcp@stmu.edu.pk>

Required permission to use Muslim Spiritual Attachment Scale-Urdu

3 messages

Wardah Ishfaq <wardah.dcp@stmu.edu.pk> Fri, Jul 14, 2023 at 4:45 PM
To: bareera.saeed@dhpt.uol.edu.pk, bareerasaeedwarraich@gmail.com

Assalam o Alaikum
Hope you are doing well. I am a PhD Scholar doing PhD in clinical Psychology. I am also doing a job as a lecturer in Shifa Tameer e Millat University. I need your permission to use the Urdu version of Muslim Spiritual Attachment Scale for my PhD research work. Kindly provide me with the Urdu version of Muslim Spiritual Attachment Scale. I shall be very grateful to you for this kindness.

–
Kinds & Regards.....
Wardah Ishfaq
Lecturer/Clinical Psychologist
Incharge Administration
Member Exam committee
Focal person of Social Media
Department of clinical Psychology
Shifa Tameer-e-Millat University,
Park Road Campus, Islamabad

Mail Delivery Subsystem <mailer-daemon@googlemail.com> Fri, Jul 14, 2023 at 4:42 PM
To: wardah.dcp@stmu.edu.pk

Address not found

Your message wasn't delivered to **bareera.saeed@dhpt.uol.edu.pk** because the address couldn't be found, or is unable to receive mail.

LEARN MORE

The response was:

```
550 5.2.1 The email account that you tried to reach is disabled. Learn more at
https://support.google.com/mail/?p=DisabledUser r66-20020a818145000000b005701afa2627sor2688901ywf.9
- gsmtp
```

Final-Recipient: rfc822; bareera.saeed@dhpt.uol.edu.pk
Action: failed
Status: 5.2.1
Diagnostic-Code: smtp; 550-5.2.1 The email account that you tried to reach is disabled. Learn more at
550 5.2.1 https://support.google.com/mail/?p=DisabledUser r66-20020a818145000000b005701afa26
27sor2688901ywf.9 - gsmtp
Last-Attempt-Date: Fri, 14 Jul 2023 04:42:32 -0700 (PDT)

---------- Forwarded message ---------
From: Wardah Ishfaq <wardah.dcp@stmu.edu.pk>
To: bareera.saeed@dhpt.uol.edu.pk, bareerasaeedwarraich@gmail.com
Cc:
Bcc:
Date: Fri, 14 Jul 2023 16:45:31 +0500
Subject: Required permission to use Muslim Spiritual Attachment Scale-Urdu
----- Message truncated -----

---

bareera saeed <bareerasaeedwarraich@gmail.com> Fri, Jul 14, 2023 at 8:15 PM
To: Wardah Ishfaq <wardah.dcp@stmu.edu.pk>

Your request is approved. Kindly find the attachment.
Regards

[Quoted text hidden]
[Quoted text hidden]

Shifa Tameer-e-Millat University
شفا تعمیرِ ملّت یونیورسٹی

Pitras Bukhari Road, Sector H-8/4
Islamabad, Pakistan
www.stmu.edu.pk

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30(2).pdf
1601K

Shifa Tameer-e-Millat University

Wardah Ishfaq <wardah.dcp@stmu.edu.pk>

Requirement for the Social Provision Scale

2 messages

Wardah Ishfaq <wardah.dcp@stmu.edu.pk> Fri, Jul 14, 2023 at 9:58 AM
To: muhammad.rizwan@uoh.edu.pk

Assalam o Alaikum
Hope you are doing well. I am a PhD Scholar doing PhD in clinical Psychology. I am also doing a job as a lecturer in Shifa Tameer e Millat University. I need the Urdu version of Social Provision Scale for my PhD research work. Kindly provide me with the Urdu version of Social provision Scale. I shall be very grateful to you for this kindness.

--
Kinds & Regards.....
Wardah Ishfaq
Lecturer/Clinical Psychologist
Incharge Administration
Member Exam committee
Focal person of Social Media
Department of clinical Psychology
Shifa Tameer-e-Millat University,
Park Road Campus, Islamabad

Dr. Muhammad Rizwan <muhammad.rizwan@uoh.edu.pk> Fri, Jul 14, 2023 at 10:01 AM
To: Wardah Ishfaq <wardah.dcp@stmu.edu.pk>

Aoa,
Thank you for the email The Urdu Translation of Social Provisions Scale is attached here along with scoring guidelines. You have my permission to use this scale in your research. Please don't forget to use proper citation whenever you publish your work from the data.

Rizwan, M., & Syed, N. (2010).Urdu Translation and Psychometric Properties of Social Provision Scale. *The International Journal of Educational and Psychological Assessment, 4*, 33-47.

My best wishes for your academic success and bright future.

Muhammad Rizwan, PhD (Clinical Psychology) / Post-Doc (Switzerland)
Designation/Affiliation Associate Professor, Dept of Psychology, UoH
Address: Hattar Road Near Swat Chowk Haripur, 22620, Khyber Pakhtunkhwa, Pakistan
Official email: muhammad.rizwan@uoh.edu.pk
Secondary email: muhammad29psy@yahoo.com
Mobile: +92333-7885165; +92300-2397125
Skype ID: muhammad29psy
Researchgate: https://www.researchgate.net/profile/Muhammad-Rizwan-45
Google Scholar: https://scholar.google.com/citations?user=pqdhlaIAAAAJ&hl=en
Website: http://www.uoh.edu.pk/profile.php?id=NDYx
Youtube: https://www.youtube.com/channel/UCMG5CRrhvOOSEIbyC2vDRPQ

From: Wardah Ishfaq <wardah.dcp@stmu.edu.pk>
Sent: Friday, July 14, 2023 9:58 AM
To: Dr. Muhammad Rizwan <muhammad.rizwan@uoh.edu.pk>
Subject: Requirement for the Social Provision Scale

[Quoted text hidden]

Shifa Tameer-e-Millat University
شفا تعمیرِ ملّت یونیورسٹی

Pitras Bukhari Road, Sector H-8/4
Islamabad, Pakistan
www.stmu.edu.pk

2 attachments

Social Provisions Urdu.pdf
577K

SPS Scoring.pdf
124K

Annexure F

MULTDIMENSIONAL DISTRESS INVENTORY FOR POLYCYSTIC OVARY SYNDROME

مندرجہ ذیل بیانات پولی سسٹک اووری سنڈروم کی وجہ سے پیدا ہونے والے نفسیاتی، معا شرتی اور روحانی اثرات کو جاننے کے لیے ترتیب دی گئی ہیں۔ہر بیان کے سامنے درجہ بندی کر دی گئی ہے۔آپ سے گزارش ہے کہ ہر بیان کو غور سے پڑھیں اور اپنی کیفیت احساسات اور خیالات کے مطابق موضوع درجہ بندی کا انتخاب کریں۔

	بیانات	کبھی نہیں	بہت کم	کبھی کبھار	اکثر	ہمیشہ
1.	اس بیماری کی بعد مجھے دوسروں سے مدد مانگنے میں مشکل پیش آتی ہے	1	2	3	4	5
2.	میرا خاندان میرے ساتھ ہمیشہ اچھے سے پیش آتا ہے۔	1	2	3	4	5

3.	اس بیماری کی وجہ سے مجھے اپنے بارے میں لوگوں سے بات کرنا نا پسند ہے۔	1	2	3	4	5
4.	اس بیماری کی وجہ سے مجھے محسوس ہوتا ہے کہ سماجی سرگرمیوں میں جانا میری گھبراہٹ کو کم کر دیتا ہے	1	2	3	4	5
5.	اس بیماری کی وجہ سے دوسروں سے بات کرتے ہوئے میں بے چینی کا شکار رہتی ہوں ۔	1	2	3	4	5
6.	مجھے دوستوں کے ساتھ وقت گزارنے میں خوشی محسوس ہوتی ہے	1	2	3	4	5
7.	اس بیماری کی وجہ سے مجھے جلدی غصہ آجاتا ہے اور میں دوسروں پر چیختی چلاتی ہوں۔	1	2	3	4	5
8.	اس بیماری کی وجہ سے مجھے دوستوں کے ساتھ وقت گزارنے میں خوشی محسوس ہوتی ہے۔	1	2	3	4	5
9.	میں دوسروں کے درد کو اچھے طریقے سے محسوس کر سکتی ہوں۔	1	2	3	4	5

10.	اس بیماری کی وجہ سے میں لوگوں کے درمیان بھی اکیلاپن محسوس کرتی ہوں۔	1	2	3	4	5
11.	اس بیماری کے باوجود بھی لوگوں سے بات کرنا مجھے پُر اعتماد بناتا ہے۔	1	2	3	4	5
12.	میں اپنے روزمرہ کاموں کو اچھے طریقے میں سر انجام دے دیتی ہوں۔	1	2	3	4	5
13.	اس بیماری کی وجہ سے مجھے دوست بنانے میں مشکل پیش آتی ہے۔	1	2	3	4	5
14.	میں نئے لوگوں سے مل کر خوشی محسوس کرتی ہوں۔	1	2	3	4	5
15.	اس بیماری کے ساتھ بھی میرے دوستوں کے ساتھ تعلقات دیرپا ہوتے ہیں۔	1	2	3	4	5
16.	میں کاموں کو مقررہ وقت میں سرانجام دے دیتی ہیں۔	1	2	3	4	5
17.	میری کوشش ہوتی ہے کہ سماجی سرگرمیوں میں مجھے کوئی کام نہ سونپا جائے۔	1	2	3	4	5
18.	مجھے زندگی کے اہم فیصلے کرنے میں دشواری محسوس ہوتی ہے۔	1	2	3	4	5

19.	اس بیماری کی وجہ سے مجھے احساس ندامت محسوس ہوتی ہے۔	1	2	3	4	5
20.	اس بیماری کے باعث مستقبل میں اولاد ہونے میں دشواری مجھے احساس ندامت سے باہر نہیں نکلنے دیتی۔	1	2	3	4	5
21.	اس بیماری کی وجہ سے اکثر میں اپنے اندر چڑچڑاپن محسوس کرتی ہوں	1	2	3	4	5
22.	میرے خاندان میں ایسے افراد ہیں جن کے ساتھ میں اپنی پریشانیاں بیان کر سکتی ہوں	1	2	3	4	5
23.	اس بیماری کی وجہ سے مجھے ہر وقت وزن بڑھنے کا ڈر لگا رہتا ہے	1	2	3	4	5
24.	اس بیماری کی وجہ سے مجھے زندگی کے اہم فیصلے کرنے میں دشواری محسوس ہوتی ہے۔	1	2	3	4	5
25.	اس بیماری کی وجہ سے میرے چہرے پر نمودار ہونے والی تبدیلیاں جیسے کہ کیل مہاسے اور بال میرے لئے پریشانی کا باعث ہے	1	2	3	4	5

26.	میں آئینے میں دیکھتے ہوئے اپنے آپ میں عیب محسوس کرتا ہوں	1	2	3	4	5
27.	اس بیماری کی وجہ سے مجھے مستقبل میں جنسی تعلقات میں دشواری کا خدشہ ہے۔	1	2	3	4	5
28.	اس بیماری کی وجہ سے مجھے لوگوں کے رویے قابل تنقید لگتے ہیں۔	1	2	3	4	5
29.	اس بیماری کی وجہ سے میرا رونے کا دل کرتا ہے	1	2	3	4	5
30.	اس بیماری کی وجہ سے مجھے ڈر رہتا ہے کہ میں بانجھ پن کا شکار نہ ہو جاؤں۔	1	2	3	4	5
31.	اس بیماری کی وجہ سے میں بے چینی محسوس کرتی ہوں	1	2	3	4	5
32.	مجھے مستقبل کا سوچ کر گھبراہٹ محسوس ہوتی ہے	1	2	3	4	5
33.	اس بیماری کے بعد مجھے نیند اچھی نہیں آتی۔	1	2	3	4	5
34.	میں منفی سوچوں کو دماغ سے نہیں نکال پاتی۔	1	2	3	4	5

35.	میں اپنے پسند کے کام کرنے میں دلچسپی محسوس نہیں کرتی۔	1	2	3	4	5
36.	زندگی میرے لیے باعثِ مسرت ہے۔	1	2	3	4	5
37.	دوسروں کی مدد کر کے میں اپنے آپ کو خدا کے قریب پاتی ہوں۔	1	2	3	4	5
38.	میں محسوس کرتی ہوں کہ یہ بیماری اللہ کی سے طرف سے آزمائش ہے۔	1	2	3	4	5
39.	خدا کا ذکر کرنے میں اطمیناں محسوس کرتی ہوں ۔	1	2	3	4	5
40.	میری بیماری کے آغاز کے بعد مذہب کے بارے میں سننے میں میری دلچسپی کم ہوگئ ہے۔	1	2	3	4	5
41.	اس بیماری کے باوجود میں یقین رکھتی ہوں کہ اللہ مجھے شفا دے گا۔	1	2	3	4	5
42.	میں مذہبی سرگرمیوں میں بڑھ چڑھ کر حصہ لیتی ہوں ۔	1	2	3	4	5

43.	اس بیماری کے بعد مجھے محسوس ہوا کہ خدا مجھے سزا دے رہا ہے۔	1	2	3	4	5
44.	اس بیماری کے باوجود بھی مجھے احساس ہے کے میرا تعلق اللہ سے مضبوط ہے۔	1	2	3	4	5
45.	جب میں خدا کے بارے میں سوچتی ہوں تو مجھے بے چینی محسوس ہوتی ہے۔	1	2	3	4	5
46.	میں حیران ہوتی ہوں کہ مجھے یہ بیماری کیوں ہوئی	1	2	3	4	5
47.	میرے ساتھ کی گئی غلطیوں کے لیے دوسروں کو معاف کرنا مشکل لگتا ہے	1	2	3	4	5
48.	موت کے بعد کیا ہو گا یہ سوچ مجھے بے چینی میں مبتلا کر دیتی ہے۔	1	2	3	4	5
49.	میں نماز پڑھتے ہوئے بہت بے چینی محسوس کرتی ہوں۔	1	2	3	4	5
50.	اس بیماری کے بعد مجھے لگتا ہے کہ آزمائشیں اللہ سے دور کر دیتی ہیں	1	2	3	4	5

5	4	3	2	1	اپنے ساتھ غلط کرنے پر مجھے خود کو معاف کرنا مشکل لگتا ہے	51.

Annexure G

Connor-Davidson Resilience Scale

پچھلے ایک ماہ میں آپ نے جیسا محسوس کیا ہے اس کے مطابق ہر سوال کے درست جواب کے سامنے X لکھیے اور اگر آپ کے ساتھ ایسی کوئی بات نہیں ہوئی تو بھی اپنی سمجھ کے مطابق ایسی صورت میں آپ کا جو جواب ہوتا وہ لکھئے

نمبر شمار	سوال	بالکل غلط	شاذو نادر ہی درست	کسی حد تک درست	اکثر درست	تقریباً مکمل درست
1	میں تبدیلیوں کے ساتھ ڈھلنے کی صلاحیت رکھتا رکھتی ہوں /					
2	میرے پاس کم از کام ایک ایسا قریب اور محفوظ رشتہ ہے جو ذہنی دباؤ کی صورت میں میری مدد کرتا کرتی ہے /					
3	بعض اوقات میرے مسائل کا کوئی اور حل نہیں ہوتا تو خدا اور قسمت میری مدد کر سکتے ہیں					
4	میں اپنے سامنے آنے والی کسی بھی مشکل سے نمٹ سکتا سکتی ہوں /					
5	پچھلی کامیابیاں مجھے آگے آنے والی مشکلات اور آزمائشوں میں حوصلہ فراہم کرتی ہیں					
6	جب میرا سامنا مشکلات سے ہوتا ہے تو میں ان کے دلچسپی کے پہلوؤں کو دیکھنے کی کوشش کرتا کرتی ہوں /					
7	سے نچنے کا راؤ مطلب پتر میں محسوس کر سکتا /سکتی ہوں					
8	کسی بیماری ، زخمی حالت یا مشکلات کے بعد جلد ہی بہتری کی طرف راغب ہو جاتا جاتی ہوں					
9	میرا یقین ہے کہ چاہے اچھا ہو یا برا، کچھ بھی بلا وجہ نہیں ہوتا					
10	نتیجہ کچھ بھی ہو لیکن میں اپنی طرف سے بھرپور کوشش کرتا/ کرتی ہوں					
11	مجھے اعتماد ہے کہ میں مشکلات کے باوجود اپنے مقاصد حاصل کر سکتا/سکتی ہوں					
12	ناممکن نظر آنے والے معاملات میں بھی میں امید کا دامن ہاتھ سے نہیں چھوڑتا/چھوڑتی					
13	ذہنی یا جذباتی کسی مشکل کی صورت میں مجھے معلوم ہوتا ہے کہ میں کہاں سے مدد حاصل کر سکتا سکتی ہوں /					
14	دباؤ کی صورت میں میری توجہ مقصد پر قائم رہتی ہے اور درست سمت میں سوچتا سوچتی ہوں					
15	میں دوسروں کی طرف سے فیصلہ کرنے کی بجائے مسائل کے حل خود تلاش کرنے کو زیادہ مناسب سمجھتا سمجھتی ہوں					

نمبر شمار	سوال	بالکل غلط	شاذو نادر ہی درست	کسی حد تک درست	اکثر درست	تقریباً مکمل درست
16	میں آسانی سے ناکامیوں کی وجہ سے ہار ماننے والا/والی نہیں					
17	میں زندگی کی مشکلات اور آزمائشوں کے سامنا کرتے وقت خود کو مظبوط تصور کرتا /کرتی ہوں					
18	ضرورت پڑنے پر میں ایسے مشکل اور غیر مقبول فیصلے کر سکتا/ سکتی ہوں جو دوسروں پر اثر انداز ہوں					
19	میں ناخوشگوار اور تکلیف دہ احساسات مثلاً اداسی، خوف، اور غصہ پر قابو پا سکتا /سکتی ہوں					
20	زندگی کے مسائل حل کرتے وقت بعض اوقات اندازے کا سہارا لینا پڑتا ہے					
21	میں یہ سمجھتا /سمجھتی ہوں کہ زندگی کا ایک خاص مقصد ہے					
22	مجھے اپنی زندگی کے معاملات پر قابو حاصل ہے					
23	مجھے چیلنجز پسند ہیں					
24	چاہے جتنی مشکلات ہوں میں اپنا مقصد حاصل کرنے کی جستجو کرتا /کرتی ہوں					
25	مجھے اپنی کامیابیوں پر فخر ہے					

Annexure H

Muslim Spiritual Attachment Scale

		مکمل غیر متفق 1	غیر متفق 2	غیر جانبدار 3	متفق 4	مکمل متفق 5
1	میں دعا یا قرآن پاک کی تلاوت سے مشکلات کے وقت اپنے اللہ تعالی کو تلاش کرتا /کرتی ہوں۔					
2	میرا قربت الٰہی پر یقین اور اللہ تعالیٰ کا میری پکار پر جواب دینا مجھے اس کو پکارنے کی حوصلہ افزائی کرتا ہے ۔					
3	میں پریشانی کی اوقات میں اللہ تعالیٰ سے رجوع کرتا /کرتی ہوں ۔					
4	جب مشکلات آن پڑتی ہیں تو میں نماز اور عبادت سے اللہ تعالیٰ کا قرب تلاش کرتا / کرتی ہوں					
5	اللہ تعالیٰ نے میری تکلیف میں میرے ساتھ ہونے کا اپنا وعدہ پورا کیا ہے ۔					
6	اللہ تعالیٰ میرا بوجھ کم کر دیتا ہے جب میں بوجھ تلے دب جاتا /جاتی ہوں ۔					
7	اللہ تعالیٰ میری مدد کرتا ہے جب میں اسے مدد کیلئے پکارتا /پکارتی ہوں ۔					

8	بحران میں اللہ تعالیٰ مجھے سنبھالتا ہے۔					
9	جب میں برے کام کروں تو میں جانتا /جانتی ہوں کہ اللہ تعالیٰ پھر بھی مجھ سے محبت کرتا ہے ۔					
10	اللہ تعالیٰ مجھ سے ہر حال میں محبت کرتا ہے ۔					
11	مشکلات میں مجھے اس بات سے سہارا ملتا ہے کہ اللہ تعالی مجھ سے ہر حال میں محبت کرتا ہے ۔					
12	میں جانتا/جانتی ہوں کہ میں کامل (بہترین) نہیں ہوں لیکن اسکے باوجود اللہ تعالیٰ مجھ سے محبت کرتا ہوں					
13	جب مجھے محسوس ہوتا ہے کہ اللہ تعالیٰ نے مجھےچھوڑا دیا جئے تو میں دیوانہ وار (شدت) کے ساتھ اس کی واپسی کی دعا کرتا /کرتی ہوں ۔					
14	اللہ تعالیٰ سے دوری کے احساس پر میں بہت آہ و پکار کرتا / کرتی ہوں ۔					
15	جب مجھے لگتا ہے کہ اللہ تعالیٰ مجھ سے دور ہوگیا ہے تو میں اسے پکارتا / پکارتی ہوں ۔					
16	میری مشکلات میں جب اللہ تعالیٰ مجھ سے دور لگتا ہے تو میں اللہ تعالیٰ کو مسلسل پکارتا / پکارتی ہیں ۔					

Annexure I

MENTAL HEALTH INVENTORY (Translated)

گزشتہ کچھ ماہ کے دوران:

نمبر شمار	سوالات	ہر وقت	زیادہ تر	کافی وقت	کچھ وقت	بہت کم وقت	بالکل نہیں
-1	آپ اپنی زندگی سے کتنا خوش اور مطمئن رہے؟						
-2	آپ نے کتنی مرتبہ خود کو تنہا محسوس کیا؟						
-3	غیر متوقع صورتِ حال کا سامنا کرتے ہوئے آپ کتنی دفعہ گھبرائے اور بے چین ہوئے؟						
-4	کتنی مرتبہ آپ کو مُستقبل، پُر امید اور تابناک نظر آیا؟						
-5	کتنی بار آپ کی زندگی ایسی چیزوں سے بھرپور تھی، جو آپ کے لئے دلچسپی کا باعث تھیں؟						
-6	کتنا وقت آپ نے پُر سکون اور پریشانی کے بغیر گزارا؟						
-7	آپ کس قدر اِن چیزوں سے لُطف اندوز ہوئے، جو عام طور پر کرتے ہیں؟						
-8	کیا آپ کو ایسا محسوس ہوا کہ آپ کا اپنی سوچ، عمل، باتوں، احساسات اور یاداشت پر قابو نہیں رہا؟						
-9	کیا آپ نے ڈپریشن محسوس کیا؟						
-10	کتنے وقت کے لئے آپ نے محبت اور چاہت محسوس کی؟						
-11	کتنا وقت آپ گھبراہٹ اور پریشانی کا شکار رہے؟						
-12	روز صبح اٹھنے پر آپ نے یہ محسوس کیا کہ یہ ایک دلچسپ دن ہوگا؟						
-13	کتنے وقت کے لئے پریشانی اور ذہنی تناؤ محسوس کیا؟						
-14	کیا آپ کو ایسا محسوس ہوتا ہے کہ آپ کا اپنے عمل، سوچوں، جذبات واحساسات پر قابو ہے؟						
-15	جب کوئی کام کرنے کی کوشش کی، تو کیا ہاتھوں میں کپکپی محسوس ہوئی؟						
-16	آپ کو کتنی بار یہ لگا کہ زندگی میں اب کچھ نہیں رہا؟						
-17	کتنا عرصہ آپ نے سکون اور اطمینان محسوس کیا؟						
-18	کتنے وقت کے لئے اپنے آپ کو جذباتی طور پر متوازن محسوس کیا؟						

نمبر شمار	سوالات	ہر وقت	زیادہ تر	کافی وقت	کچھ وقت	بہت کم وقت	بالکل نہیں
19-	آپ کس قدر افسردہ اور مایوس رہے؟						
20-	کتنی بار آپ کا رونے کو دل چاہا؟						
21-	آپ نے کتنی مرتبہ محسوس کیا کہ اگر آپ مر گئے ہوتے، تو دوسروں کے لئے بہتر ہوتا؟						
22-	کتنی مرتبہ بغیر کسی مشکل کے آپ نے خود کو پُرسکون محسوس کیا؟						
23-	کتنی دیر کے لئے آپ کو احساس ہوا کہ آپ کے چاہنے اور چاہے جانے کے تعلقات مکمل ہیں؟						
24-	کتنی مرتبہ آپ نے یہ محسوس کیا کہ کچھ وقت بھی ویسا نہیں ہو رہا، جیسا کہ آپ چاہتے ہیں؟						
25-	کسی حد تک آپ کے اعصاب اور گھبراہٹ آپ کے لئے پریشانی کا باعث بنے؟						
26-	کتنا وقت زندگی آپ کے لئے ایک زبردست مُہم تھی؟						
27-	کتنی دفعہ آپ نے محسوس کیا کہ آپ اتنے دکھی ہیں کہ کوئی چیز آپ کو خوشی نہیں دے سکتی؟						
28-	کیا آپ نے کبھی اپنی زندگی ختم کرنے کا سوچا؟						
29-	کتنے وقت کے لئے آپ نے بے چینی، بے قراری اور بے صبری محسوس کی؟						
30-	کتنا وقت آپ چیزوں کے لئے غمزدہ اور افسردہ رہے؟						
31-	آپ نے کتنا وقت خود کو خوش اور ہلکا پھلکا محسوس کیا؟						
32-	کتنی دفعہ آپ بڑبڑاہٹ، پریشانی اور گھبراہٹ میں مبتلا ہوئے؟						
33-	کیا آپ پریشان اور بے چین رہے؟						
34-	آپ کتنا وقت ایک خوش باش انسان رہے؟						
35-	کتنی مرتبہ خود کو پُرسکون کرنے میں آپ کو مُشکل رہی؟						
36-	کتنی بار آپ کی ہمت اور جذبہ کم رہا؟						
37-	آپ کتنی مرتبہ صبح پُرسکون اور تازہ دم جاگے؟						
38-	آپ پر کوئی دباؤ تھا یا آپ نے محسوس کیا کہ آپ کسی دباؤ میں ہیں؟						

Social Provision Scale

Annexure J

سوالنامہ

نام۔۔۔۔۔۔۔۔۔۔۔۔۔۔۔۔۔۔۔۔۔۔۔۔۔۔۔۔۔۔۔جنس۔۔۔۔۔۔۔۔۔۔۔۔۔۔۔۔عمر۔۔۔۔۔۔۔۔۔۔۔۔۔۔۔۔۔۔

ہدایات: مندرجہ ذیل سوالوں کا جواب دینے کے لئے اپنے دوستوں، خاندان کے افراد، ساتھ کام کرنے والے ساتھی اور ہم فقہ افراد وغیرہ کے بارے میں اپنے موجودہ تعلقات ذہن میں رکھیئے۔ اور برائے مہربانی اس بات کی نشاندہی کیجئے کہ درج ذیل ہر بیان آپ کے دوسرے لوگوں کے ساتھ موجودہ تعلقات کو کس حد تک بیان کرتا ہے۔ درج ذیل درجہ بندی کا استعمال کرتے ہوئے اپنی رائے کی نشاندہی درست (ہندسہ) منتخب خانے میں لگا کر کیجئے۔

پرزور غیر متفق	غیر متفق	متفق	پرزور متفق
۱	۲	۳	۴

مثال کے طور پر اگر آپ محسوس کریں کہ بیان آپ کے موجودہ تعلقات کے حوالے سے بالکل درست ہے تو آپ ''پرزور متفق'' کے کالم میں (۴) کا ہندسہ لکھ دیں۔ اگر آپ محسوس کریں کہ درج ذیل بیان آپ کے موجودہ تعلقات کو بالکل واضح بیان نہیں کر رہا تو آپ ''پرزور غیر متفق'' کے کالم میں (۱) کا ہندسہ لکھ دیں۔

بیانات	پیمانہ
۱۔ اگر مجھے واقعی مدد کی ضرورت ہو تو ایسے لوگ ہیں جن پر میں انحصار کر سکتا/سکتی ہوں۔	------
۲۔ مجھے محسوس ہوتا ہے کہ دوسرے لوگوں کے ساتھ میرے ذاتی تعلقات نہیں ہیں۔	------
۳۔ ایسا کوئی نہیں ہے جس سے میں مشکل وقت میں راہنمائی کے لئے رجوع کر سکوں۔	------
۴۔ ایسے لوگ ہیں جو مدد کے لئے مجھ پر انحصار کرتے ہیں۔	------
۵۔ ایسے لوگ ہیں جو بالکل ایسی ہی سماجی سرگرمیوں سے لطف اندوز ہوتے ہیں جن سے میں ہوتا/ہوتی ہوں۔	------
۶۔ دوسرے لوگ مجھے قابل نہیں سمجھتے ہیں۔	------
۷۔ میں خود کو ذاتی طور پر کسی دوسرے شخص کی بھلائی کے لئے ذمہ دار محسوس کرتا/کرتی ہوں۔	------
۸۔ میں خود کو لوگوں کے ایسے گروہ کا حصہ محسوس کرتا/کرتی ہوں جو کہ میرے جیسے رویوں اور عقائد کے حامل ہیں۔	------
۹۔ میرا خیال نہیں ہے کہ دوسرے لوگ میری مہارتوں اور صلاحیتوں کا احترام کرتے ہیں۔	------
۱۰۔ اگر کچھ غلط ہو جائے تو کوئی بھی میری مدد کے لئے نہیں آئے گا۔	------
۱۱۔ میرے قریبی تعلقات مجھے جذباتی تحفظ اور بہتری کا احساس مہیا کرتے ہیں۔	------
۱۲۔ کوئی ایسا ہے جس سے میں اپنی زندگی کے اہم فیصلوں کے متعلق بات کر سکتا/سکتی ہوں۔	------
۱۳۔ میرے ایسے تعلقات ہیں جہاں میری قابلیت اور مہارت کو مانا جاتا ہے۔	------

بیانات	پیمانہ
۱۴۔ایسا کوئی نہیں ہے جو میری دلچسپیوں اور پریشانیوں میں شریک ہوتا ہو۔	------
۱۵۔ایسا کوئی نہیں ہے جو مجھ پر اپنی بہتری کے لئے بھروسہ کرتا ہو۔	------
۱۶۔اگر مجھے مسائل درپیش ہوں تو ایک ایسا قابل اعتماد شخص ہے جس سے میں مشورے کے لئے رجوع کرسکوں۔	------
۱۷۔میں محسوس کرتا/کرتی ہوں کہ کم از کم کسی ایک شخص کے ساتھ میرا مضبوط جذباتی تعلق ہے۔	------
۱۸۔اگر مجھے واقعی مدد کی ضرورت ہو تو کوئی ایسا شخص نہیں ہے جس پر میں انحصار کرسکتا/سکتی ہوں۔	------
۱۹۔ایسا کوئی بھی نہیں ہے جس کے ساتھ میں آسانی سے مسائل پر بات کرسکوں۔	------
۲۰۔ایسے لوگ ہیں جو میرے جوہر اور صلاحیتوں کو سراہتے ہیں۔	------
۲۱۔میں کسی دوسرے شخص کے ساتھ گہرے تعلق کی کمی محسوس کرتا/کرتی ہوں۔	------
۲۲۔ایسا کوئی نہیں ہے، جو وہ کچھ کرنا پسند کرے جو میں کرتا/کرتی ہوں۔	------
۲۳۔ایسے لوگ ہیں جن پر میں ہنگامی صورتحال میں بھروسہ کرسکتا/سکتی ہوں۔	------
۲۴۔کسی کو ضرورت نہیں، کہ میں ان کی پرواہ کروں۔	------