
Exploring The Role of Spirituality in Mindfulness and Quality of Life Among University Students in Peshawar

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Abstract

The purpose of this study was to explore the Role of Spirituality in Mindfulness and Quality of Life among University Students in Peshawar. The aim was to find out that spirituality will positively predict mindfulness and quality of life among university students. While significant gender disparities will be observed in spirituality and mindfulness. The study was based on a correlation or cross-sectional survey design through convenient sampling technique. A correlation study of 150 students with age range 19-26 years, (M=22.10), (SD=1.59) was conducted, out of which (n=75) were male and (n=75) were females. The variables of the study spirituality, mindfulness and quality of were measured through spirituality scale (SS-23), mindful attention awareness scale (MASS-15) and World Health Organizational quality of life scale (QOL- BREF-26). The statistical analysis correlation, independent sample T-test and linear regression revealed that spirituality has significant and positive effect on mindfulness and quality of life, with 19% variance in quality of life and 16.1% variance in mindfulness while and independent sample T-test indicated that females scored higher on both spirituality and mindfulness compared to their male counterpart. Understanding these dynamics has implication for tailored interventions and support systems to enhance wellbeing in this population. Research supports all the hypotheses.

Keywords: Spirituality, Mindfulness, Quality of Life.

Introduction

Recent research has increasingly focused on the interplay between spirituality, mindfulness, and quality of life, with findings consistently indicating positive associations. Studies have revealed that spirituality is linked to various favorable outcomes, encompassing enhanced mental health, well-being, and overall quality of life (Frazier et al., 2015; Smith et al., 2018). Similarly, mindfulness practices have demonstrated their effectiveness in fostering improvements in psychological and physical well-being, ultimately enhancing overall quality of life (Chiesa & Serretti, 2010; Khoury et al., 2015). At its core, this research is built upon three fundamental pillars: spirituality, mindfulness, and quality of life. Spirituality, a multifaceted and deeply personal exploration of life fundamental questions, has consistently emerged in the literature as a force positively associated with mental health, overall well-being, and the quality of life (Miller & Thoresen, 2003; Seligman, 2011). It is the lens through which individuals seek meaning, purpose, and connection to something greater than themselves. Mindfulness, characterized by its intentional focus on the present moment without judgment, is another key component of this framework (Kabat-Zinn, 1994). It has proven effective in cultivating psychological and physical well-being, factors that significantly contribute to an individual overall quality of life (Chiesa; Serretti, 2010).

Theoretical framework

To guide this research and provide a theoretical underpinning, we draw upon several well-established theoretical frameworks. Firstly, Mindfulness-Based Stress Reduction (MBSR) is an 8-week program developed by Dr. Jon Kabat-Zinn, focusing on mindfulness meditation and gentle movement practices. It aims to reduce stress and enhance well-being by cultivating non-

judgmental awareness of thoughts, feelings, and bodily sensations. MBSR has been widely used in clinical settings to manage conditions like chronic pain and anxiety, emphasizing the benefits of mindfulness for improved mental and physical health. Mindfulness-Based Stress Reduction (MBSR) principles are incorporated, emphasizing how mindfulness practices can reduce stress and enhance overall well-being, potentially leading to an improved quality of life (Kabat-Zinn, 1994). This is consistent with research findings that suggest mindfulness interventions can lead to reduced stress and increased psychological well-being (Keng et al., 2011). Building upon the principles of MBSR, Positive Psychology offers valuable insights into how both mindfulness and spirituality contribute to greater life satisfaction and overall quality of life. Positive psychology is a branch of psychology that focuses on studying and promoting human well-being, happiness, and positive aspects of life. It seeks to understand factors that contribute to flourishing and life satisfaction, emphasizing strengths, positive emotions, and resilience. Rather than solely addressing psychological disorders, positive psychology explores how individuals can lead fulfilling lives and thrive. It has practical applications in areas like therapy, education, and personal development." This approach focuses on the study of positive emotions, strengths, and the factors that foster well-being (Seligman & Csikszentmihalyi, 2000). Research has indicated that cultivating mindfulness can lead to increased well-being and life satisfaction (Brown & Ryan, 2003). In alignment with the principles of Positive Psychology, Transcendence Theory posits that spirituality involves experiences of transcendence, which, as we explore, may further enhance the overall quality of life. Transcendence Theory, another critical element, posits that spirituality involves experiences of transcendence that lead to positive psychological outcomes (Koenig et al., 2014). We explore how these spiritual experiences may enhance the overall quality of life. Moreover, research suggests that spirituality is associated with enhanced psychological well-being and quality of life (Underwood & Teresi, 2002). Additionally, Self-Determination Theory (SDT) offers insights into how mindfulness and spirituality can contribute to well-being and quality of life by fulfilling individuals' basic psychological needs (Deci & Ryan, 1985). SDT suggests that autonomy, competence, and relatedness are essential for well-being, and we investigate how mindfulness and spirituality may facilitate these needs. Previous studies have found that mindfulness practices can enhance autonomy and well-being (Ryan et al., 2008). Expanding our framework, we acknowledge that quality of life is influenced by various psychological, social, and biological factors. Self-Determination Theory sets the stage for our exploration of these multifaceted aspects. "Incorporating aspects of psychosocial and biopsychosocial models, our framework acknowledges that quality of life is influenced by various psychological, social, and biological factors (Engel, 1977; Pargament et al., 2000). We explore how spirituality and mindfulness practices may impact these multifaceted aspects to collectively influence the quality of life. Furthermore, our framework draws on Resilience Theory to understand how spirituality and mindfulness practices may serve as resilience factors, enabling individuals to adapt to adversity and maintain a high quality of life. This extends our examination of various factors influencing well-being. Additionally, Resilience Theory informs our framework, highlighting how spirituality and mindfulness practices may serve as resilience factors, enabling university students to adapt to adversity and maintain a high quality of life (Rutter, 1985; Vander Weele et al., 2016). Recent research has explored the role of spirituality in fostering resilience and well-being (Bhullar et al., 2013). This comprehensive framework serves as the foundation for our research questions and hypotheses. At the heart of this study lies the foundation of Self-Determination Theory (SDT), a well-established framework in the field of psychology, which serves as the guiding principle for our exploration (Deci & Ryan, 1985). SDT posits that individuals are intrinsically motivated to satisfy their psychological needs for autonomy, competence, and relatedness (Deci & Ryan, 1985). It enables us to explore the intricate and interconnected relationships between spirituality, mindfulness, and quality of life among university students in Peshawar, Peshawar. Through this research, we aim to gain a deeper understanding of how these factors interact and ultimately impact the well-being and quality of life of university students, contributing to the broader body of knowledge in psychology, education, and well-being.

Spirituality

Defining spirituality is a formidable task, given its diverse interpretations. However, a widely acknowledged definition has been articulated by Miller and Thoresen (2003): *"the personal quest to comprehend answers to fundamental questions about existence, significance, and the connection to the sacred or transcendent, which may or may not result from or lead to religious rituals and community formation"* (p. 5). In essence, spirituality involves the pursuit of purpose, meaning, and a sense of connection with entities beyond the self. Defining spirituality is a multifaceted task deeply rooted in history and language. The term's origins in Latin, encompassing meanings such as breath, soul, and life, or 'spirare,' denoting the act of breathing (Eliason et al, 2001), reveal its complexity. Scholars resist stringent definitions due to concerns over potential restrictiveness (Taggart, 2001), another study conducted Moberg (2002) introduces a critical distinction between substantive and functional definitions, bridging science and theology. The exploration of spirituality is a multifaceted and expansive subject within the realms of social sciences, such as psychology and sociology. It encompasses beliefs, practices, and experiences aimed at unraveling the meaning and purpose of life (Koenig, 2014). Notably, spirituality is recognized for bestowing a plethora of benefits, including enhancements in mental health, overall well-being, and the quality of life (Seligman, 2011). This literature review aims to scrutinize the significance of spirituality in individuals' lives, its potential advantages, and methodologies employed for its measurement. Hodge (2001) offers a straightforward definition of spirituality as a profound relationship with the Divine, fostering purpose in life. However, amidst this diversity of perspectives, a common thread emerges: spirituality's underlying concern with the quest for meaning, purpose, and the alignment of deeply held personal beliefs (Neck & Milliman, 1994). Vaill (1996) provides an alternative perspective, defining spirituality as the subjective emotions and cognitions individuals hold regarding the fundamental meaning of their existence and the contributions they make to the world. Krishnakumar and Neck (2002) argue that the existence of multiple viewpoints regarding spirituality can be a constructive element within organizations, facilitating understanding and inclusively. Piedmont and Leach (2002) propose that spirituality serves as the foundational psychological material from which religious behaviors emerge. This perspective suggests that spirituality, characterized by an individual's sense of connection to the sacred and the search for meaning and purpose, forms the core of one's inner life (Piedmont & Leach, 2002). In this view, religious behaviors such as attending religious services, participating in rituals, and engaging in communal religious activities are considered external expressions of an individual's inner spirituality. In essence, spirituality provides the psychological basis or source from which these religious behaviors originate (Piedmont & Leach, 2002). Zohar and Marshall (2000) introduce the concept of Spiritual Quotient (SQ), emphasizing its transformative potential, particularly in terms of meaning, values, and creative vision. McSherry and Cash (2004) explore the widely cited definitions, particularly within the context of nursing, and arrive at the conclusion that establishing a universally acceptable definition of spirituality is a virtually insurmountable theoretical challenge. In summary, the absence of a universally embraced, rigorously defined concept of spirituality underscores a substantial research gap (Badrinarayanan & Madhavaram, 2008). Academics and scholars continue to grapple with this intricate task, understanding that while defining spirituality may be challenging, its fundamental importance in human experience remains undeniable. Furthermore, spirituality is viewed as a mechanism enabling individuals to transcend themselves in various ways, an integrative force within the individual or the world, a personal and private journey, and an inner path leading to the discovery of one's true essence. Some definitions also emphasize spirituality's four components: beliefs beyond the material world, spiritual practices, awareness, and transcendental experiences. Additionally, self-transcendence, characterized by self-forgetfulness, transpersonal identification, and mysticism, is another facet within these definitions (McCarroll, O'Connor, & Meakes, 2005; Vimal & Bhardwaj, 2015). While some overlap exists among these definitions, others appear mutually exclusive. This extensive list is by no means exhaustive, reflecting the diversity of authors' perspectives, often rooted in fields such as nursing practice, mental health, and medical health. The challenge of reaching a single, universally agreed-upon definition of spirituality appears remote, akin to the elusive nature of consciousness (Vimal, 2009b). However, clarity can be

enhanced if authors explicitly specify the aspects of spirituality they refer to when employing the term. Additionally, these definitions can be categorized into two groups: religion-based (idealism and/or interactive substance dualism) and science-based (secular/non-religion: materialism) spirituality (Vimal & Bhardwaj, 2015).

Religion and spirituality:

Religion and spirituality are intricate aspects of human experience that have been the focus of extensive research and scholarly discourse. While they share some commonalities, they also exhibit distinct characteristics. Religion typically involves organized systems of beliefs, rituals, and practices often associated with specific institutions and dogmas (Zinnbauer et al., 1997). In contrast, spirituality is often regarded as a broader and more personal concept, encompassing one's individual quest for meaning, transcendence, and a connection with the sacred or transcendent, irrespective of religious affiliations (Piedmont, 1999). The differentiation between religion and spirituality is crucial for understanding their impact on individuals and society. Numerous studies have explored the influence of religious and spiritual factors on various aspects of human life, including mental health (Koenig et al., 2012), well-being (Pargament et al., 2000), and coping mechanisms (Park, 2005). These investigations often draw distinctions between religious practices and beliefs associated with organized religions and the personal, subjective experiences linked to spirituality (Emmons & Paloutzian, 2003). By making these distinctions, researchers can better elucidate how religion and spirituality independently or interactively shape individuals' lives.

Advantages of spirituality

Research has revealed that spirituality is associated with numerous advantages, including enhanced mental health and overall well-being (Seligman, 2011). Individuals with higher levels of spirituality tend to exhibit greater resilience, coping skills, and a stronger sense of life purpose. Some studies even suggest that spirituality is linked to improved physical health outcomes, such as reduced blood pressure, a decreased risk of cardiovascular disease, and enhanced immune system function (Murray-Swank & Pargament, 2005). In summary, spirituality is a multidimensional concept that encompasses beliefs, practices, and experiences geared toward finding meaning and purpose in life. Research has consistently linked spirituality to improved mental health, well-being, and overall quality of life. While measuring spirituality can be intricate, the availability of specialized instruments facilitates the comprehensive evaluation of its various aspects.

Mindfulness

In recent years, the concept of mindfulness has garnered significant attention in psychology and various other fields. Kabat-Zinn (1994) offered a foundational definition of mindfulness as "*paying attention in a particular way: on purpose, in the present moment, and non-judgmentally.*" Subsequently, a wealth of research has underscored the manifold benefits of mindfulness across physical and mental health and various facets of functioning. Mindfulness-based interventions have demonstrated their efficacy in alleviating symptoms of depression and anxiety (Hofmann et al., 2010), assisting individuals dealing with posttraumatic stress disorder (Khouri et al., 2013), and aiding those grappling with substance use disorders (Kearney et al., 2013; Witkiewitz et al., 2014). Additionally, mindfulness has been associated with improved physical health outcomes, including stress reduction (Chiesa & Serretti, 2009), lower blood pressure (Hughes & Ladas, 2014), enhanced immune system functioning (Davidson et al., 2003), and potential pain management benefits (Morone et al., 2008). Beyond its effects on mental and physical health, mindfulness has demonstrated its prowess in enhancing cognitive functioning. This includes bolstering attention and working memory (Chambers et al., 2008), facilitating emotion regulation (Hölzel et al., 2011), increasing life satisfaction (Brown & Ryan, 2003), and fostering greater empathy and compassion for others (Hutcherson et al., 2008). The mechanisms underlying mindfulness have spurred various theoretical frameworks, such as the attention regulation theory and the self-regulation model. These theories posit that mindfulness may enhance cognitive

functioning and empower individuals to regulate their emotions and behaviors more effectively (Jha et al., 2007; Tang et al., 2015). In summation, the extensive body of research on mindfulness underscores its multifaceted benefits, spanning physical and mental health, cognitive functioning, and diverse facets of human functioning. However, it is essential to acknowledge that further research is warranted to fully grasp its potential and to discern optimal ways of integrating mindfulness into treatment and other interventions, aligning with the insights of Kabat-Zinn (1994).

Quality of Life (QoL)

Quality of life (QoL) is a multifaceted and pivotal concept, encapsulating an individual's comprehensive well-being across diverse life domains, encompassing physical health, psychological well-being, social relationships, and environmental factors (World Health Organization, 1994). The significance of QoL has surged in various fields, including psychology, medicine, and public health, as it offers a holistic lens through which to gauge an individual's subjective experiences and daily functioning (Skevington et al., 2004). Recent years have witnessed a burgeoning interest in the identification of determinants influencing QoL and strategies to enhance it. Multiple studies have delineated several predictors of QoL, encompassing demographic factors (e.g., age, gender, education), physical health status, psychological well-being, social support, and environmental factors (Bjelland et al., 2008; Diener et al., 2010; Jang et al., 2015; Lu et al., 2017). For instance, older adults typically report lower QoL compared to their younger counterparts due to age-associated alterations in physical health and shifting social roles (Bjelland et al., 2008). Moreover, individuals grappling with chronic illnesses or disabilities often report diminished QoL compared to those in good health (Diener et al., 2010). Positive psychological well-being, comprising positive emotions, life satisfaction, and a sense of life's meaning, has consistently emerged as a robust correlate of heightened QoL (Jang et al., 2015; Lu et al., 2017). Additionally, factors such as social support and environmental conditions, including access to healthcare, education, and safe living environments, exert significant influence on augmenting QoL (Bjelland et al., 2008). In conclusion, QoL manifests as a multifaceted and multidimensional construct, reflecting the interplay of various determinants across physical, psychological, social, and environmental domains. A comprehensive approach is indispensable in addressing QoL and fostering its improvement. The identification of QoL predictors serves as a foundational underpinning for crafting interventions and formulating policies aimed at enhancing individuals' holistic well-being and overall quality of life.

Spirituality and Mindfulness

Spirituality and mindfulness, though distinct concepts, are frequently used interchangeably in fields such as psychology and healthcare due to their close relationship (Kumar & Singh, 2015; Rasic, 2016). Spirituality involves a belief in something greater than oneself, while mindfulness entails the practice of being fully present and engaged in the current moment (Kumar & Singh, 2015). Notably, both spirituality and mindfulness have garnered attention for their associations with improved mental health outcomes, including reductions in stress, anxiety, and depression (Büssing et al., 2012; Carlson et al., 2015; Greeson et al., 2011). Explorations into the relationship between spirituality and mindfulness have unveiled intriguing findings. Research indicates that individuals reporting higher levels of spirituality also tend to report elevated levels of mindfulness (Ng et al., 2016), and conversely, individuals with heightened mindfulness exhibit greater levels of spirituality (Cashwell & Vacc, 2015). These findings suggest a mutual reinforcement between spirituality and mindfulness. Furthermore, some researchers have proposed that mindfulness serves as a conduit through which spirituality exerts its influence on mental health outcomes (Greeson et al., 2011; Rasic, 2016). Mindfulness practices, such as meditation, have the potential to enhance spiritual experiences and beliefs, ultimately contributing to improved mental health outcomes (Greeson et al., 2011). Additionally, mindfulness practices may facilitate a deeper connection with one's inner self, nurturing spirituality and fostering overall well-being (Rasic, 2016). In summary, the literature highlights a positive association between spirituality and mindfulness, both of which are linked to improved mental health outcomes. Moreover,

mindfulness is proposed as a potential mechanism through which spirituality may impact mental health. Nevertheless, the intricate interplay between these two concepts warrants further investigation to unravel its complexities.

Spirituality and Quality of Life

Numerous research studies have established a positive association between spirituality and quality of life (Jafari et al., 2013). Koenig et al. (2014) conducted a study among older adults and identified spirituality as a significant predictor of overall quality of life. Additionally, Krok et al. (2016) found that spirituality was intricately linked to heightened emotional well-being and greater life satisfaction. These collective findings underscore the potential of integrating spirituality into daily life to yield a beneficial impact on one's quality of life. Moreover, spirituality has emerged as a protective factor against adverse health outcomes. Wong et al. (2015) discovered that spirituality was inversely related to the risk of depression among adults. Similarly, Tanyi (2002) observed that spirituality played a pivotal role in mitigating stress and anxiety. Research has also delved into the role of spirituality in fostering resilience in the face of adversity. VanderWeele et al. (2016) found a positive association between spirituality and heightened levels of resilience and well-being in response to stressful life events. Furthermore, Jim et al. (2017) established a positive link between spirituality and post-traumatic growth. In summation, the existing body of literature on spirituality and quality of life underscores the potential of incorporating spirituality into daily life to positively impact mental and physical health outcomes. Consistent research findings illustrate the positive association between spirituality and overall quality of life, emotional well-being, and life satisfaction. Furthermore, spirituality emerges as a protective factor against adverse health outcomes and a promoter of resilience in the face of adversity. These insights hold significant implications for healthcare professionals, emphasizing the importance of integrating spirituality into clinical practice.

Mindfulness and Quality of Life

Research has consistently demonstrated a positive association between mindfulness and various aspects of quality of life. For instance, Garland et al. (2015) conducted a study showing the effectiveness of mindfulness-based interventions in enhancing both physical and psychological quality of life among individuals with chronic pain. Similarly, Cebolla et al. (2017) found that mindfulness practice was linked to elevated levels of subjective well-being, perceived health, and overall quality of life in healthy adults. Mindfulness has also exhibited the capacity to enhance the quality of life within specific populations, including cancer patients. Carlson et al. (2013) observed that mindfulness-based stress reduction interventions led to notable improvements in the quality of life, mood, and symptoms of stress in cancer patients. Additionally, Schellekens et al. (2017) reported that mindfulness-based cognitive therapy effectively improved quality of life while reducing anxiety and depression symptoms among breast cancer survivors. The mechanisms underpinning the mindfulness-quality of life relationship are multifaceted. One proposed mechanism suggests that mindfulness amplifies cognitive and emotional regulation, thereby enhancing individuals' coping abilities with stressors and overall well-being (Khouri et al., 2015). Moreover, mindfulness has been shown to augment positive affect and diminish negative affect, contributing to holistic improvements in the quality of life (Goyal et al., 2014). While the positive relationship between mindfulness and quality of life is well-established, further research is warranted to delve into the specific domains of quality of life most influenced by mindfulness practices. Additionally, the exploration of the long-term effects of mindfulness interventions on quality of life remains an avenue for future investigation.

Gender Differences

Gender studies examining the interplay of spirituality, mindfulness, and quality of life have yielded valuable insights into gender-specific experiences. Research has consistently indicated that women often demonstrate a greater inclination toward mindfulness practices and the incorporation of spiritual beliefs into their daily lives compared to men (Bardacke et al., 2012). This gender-based variation emphasizes the importance of tailored approaches when assessing the impact of mindfulness and spirituality on individuals' lives. Furthermore, spirituality has been

identified as a significant source of strength and resilience, particularly among women, contributing to higher quality of life outcomes (Gall, 2000). These findings underscore the vital role that spirituality can play in enhancing well-being, particularly among female populations. Additionally, gender-sensitive investigations have suggested that women may derive more substantial psychological benefits from mindfulness interventions, including stress reduction and improved emotional regulation (Galante et al., 2018). This emphasizes the need for gender-specific considerations in the design and implementation of mindfulness-based interventions. In essence, gender studies in this area illuminate the complex interplay among spirituality, mindfulness, gender, and their collective impact on overall quality of life. These findings underscore the significance of understanding and addressing gender-specific experiences and needs in the context of mindfulness, spirituality, and well-being. However, despite the burgeoning interest in these areas, a notable gap exists in the scholarly literature, specifically concerning the role of Spirituality in mindfulness and quality of life, particularly within the context of university students.

Rationale

The primary motivation for this research is to investigate role of spirituality in mindfulness, and quality of life among university students in Peshawar. Emerging adulthood is a critical developmental period marked by significant transitions and various stressors related to academics, personal development, and the transition to adulthood (Arnett, 2000). Understanding how spirituality and mindfulness contribute to the overall well-being of university students during this pivotal life stage is crucial. Prior research has highlighted the potential benefits of mindfulness practices (Shapiro et al., 2008) and spirituality (Koenig et al., 2012) in enhancing mental health and quality of life. However, the specific interplay between these two factors within the university student population remains relatively under explored in Peshawar. Therefore, this study aims to provide empirical evidence on how spirituality influences mindfulness practices and, subsequently, how both factors collectively impact the quality of life experienced by university students. The aim of this study is to comprehensively investigate deficits in spirituality within the university context in Peshawar, recognizing their profound impact on student's well-being. These deficits, often accompanied by feelings of stress, anxiety, and emotional disconnection, necessitate focused attention. Addressing this critical issue is a vital for several compelling reasons. Firstly, deficits in spirituality can lead to unaddressed well-being challenges among students, affecting their mental health and capacity to cope with academic and personal stressors. Additionally, the emotional disconnection resulting from a lack of spiritual fulfillment can lead to feelings of isolation and disengagement from both peers and academic pursuits, jeopardizing their sense of belonging. And these deficits significantly diminish student overall quality of life, impacting their satisfaction with life and their ability to find meaning and purpose in daily experiences. They may also hinder student's capacity to set and pursue meaningful life goals, causing a lack of direction and motivation. Moreover, deficits in spirituality can strain interpersonal relationships, disrupting social support networks and contributing to psychological distress, including symptoms of depression and anxiety. Practically the deficits in spirituality may impair academic performances, affecting concentration and focus. On a more positive note addressing these deficits may lead to personal growth and transformation, as some students begin on journeys of self discovery and spiritual development, enhancing their overall wellbeing. Finally acknowledging the impact of deficits in spirituality raises institutional awareness and by exploring these challenges, the research seeks to contribute to the development of effective strategies to promote the wellbeing and mindfulness of students in the region

Objectives

- To empirically investigate whether there is a positive association between spirituality and mindfulness among university students
- To assess spirituality as a predictor of quality of life among university students
- To investigate potential gender disparities in spirituality and mindfulness among university students

Hypotheses

- Spirituality will positively predict mindfulness among university students.
- Spirituality will positively predict the quality of life among university student.
- Significant gender differences will be observed in spirituality and mindfulness among university students.

Operational definitions

Spirituality

Spirituality is defined as an individual's self reported engagement in activities or practices that foster a connection to something greater than oneself. These activities may encompass religious practices, meditation, prayer and contemplation of life's purpose. Measurement of spirituality will rely on a validated questionnaire, such as the spiritual wellbeing scale Delaney 2005, which assesses the frequency and depth of engagement in such practices and captures the subjective experiences of spirituality.

Mindfulness

Mindfulness, as assessed by the mindful attention awareness scale (MAAS) Ryan and Brown, 2003, is a mental state characterized by heightened, non judgmental awareness of present –moment experiences.

Quality of life

Quality of life is an individual's subjective assessment of their overall wellbeing and satisfaction with various life aspect, including physical health, mental health, social relationships and environmental conditions. It reflects their level of contentment and fulfillment in these domains and consider both positive and negative aspects of their life circumstances to offer a comprehensive view of wellbeing.

Methodology

Research Design

The research design for the current study was correlation or cross-sectional study design. To measure the association between the variables i.e spirituality, mindfulness and quality of life.

Sample

Undergraduate students from different universities of Peshawar were selected as participant for the study. the sample consistent of (N= 150) undergraduate students .in sample n=75 male and n= 75 was female within age range 19 and 26 years and they were chosen using a convenient sampling technique.

Inclusion criteria

Participants must be adolescents aged 19 to 26 years and the participants should have spiritual dimension in their lives and should be proficient in English language

Exclusion criteria

Individuals with severe mental health conditions such as schizophrenia, bipolar disorder, or severe personality disorder will be excluded due to the potential impact of these conditions on their ability to participate effectively. Participants younger than 19 and older than 26 years will not be included and also participants who are not proficient in English language will not be included.

Instruments

Demographic information

The demographic sheet includes the name of the participant (optional), age, gender education, socioeconomic status, birth order and number of siblings and other relevant information.

Mindful attention awareness scale (MAAS)

Mindful Attention Awareness Scale (MAAS) developed by (Brown & Ryan, 2003) is a 15-item unidimensional self-rating scale for assessing the mindfulness. Each item is measured on 6-point Likert scale ranging from 1 (almost always) to 6 (almost never). The Cronbach's alpha reliability coefficient ranges from 0.82 to 0.87 (Brown & Ryan, 2003).

Spirituality Scale

23-item spirituality scale (Delaney, C., 2005) was used to measure spirituality. It has 1-6 likert type scale and a good reliability of .90 for this population. The scale has three subscales. Item 1, 2, 3 and 4 are used for Self-discovery subscale; item 5, 6, 7, 8, 9, 11, 13, 15, 16, 18, 21, 22 and 23 shows Eco-awareness component of spirituality scale; and item 10, 12, 14, 17, 19 and 20 shows Relationship subscale of spirituality scale.

World health organization Quality of life –BREF(WHOQOL-BREF)

World Health Organization Quality of Life-BREF (WHOQOL-BREF) - This instrument measures quality of life on four domains: physical health, psychological health, social relationships, and environment. The Cronbach's alpha reliability coefficients range from 0.66 to 0.84 for the subscales and 0.89 for the total scale (Skevington et al., 2004). The responses are recorded on a 5-point Likert scale ranging from 1 (very poor) to 5 (very good).

Procedure

The whole study was conducted according to APA code of conduct. Before collection of data formal permission was taken from head of the concern institutions. participants were taken from the different departments of Islamia College Peshawar and other universities in Peshawar, same socioeconomic status, same age group and educational level. before administering the questionnaire, the participants were briefed about the nature and purpose of the study. Questionnaires were handed over to the participant and incase of any difficulty in understanding any item in the questionnaire were explained, and they were also informed that these are not tests in traditional form; therefore, there is no right or wrong answers only their opinion matter. Ethical consideration was taken into account during the course of the research study. First of all, participants were briefed about the purpose of the research study and explanation was given to them. Somewhere they had inquiries or did not understand informed consent was pursued from all the participants of the study.

Results

Table 1: *Socio demographic characteristics (N=150)*

Variable		N	%
Gender	Male	75	50.0%
	Female	75	50.0%
Age	19-23	126	84.1%
	23-26	24	16%
SES	Upper	20	13.3%
	Middle	123	82.0%
	lower	7	4.7%
Birth order	Elder	37	24.7%
	middle	86	57.3%
	younger	27	18.0%

Note. N=150(n=75 for females and n=75 for males)

Table 2: *Psychometric properties for mindfulness, spirituality and quality of life.*

Scale	No of Items	M	SD	Range	Cronbach (α)
Mindfulness scale	15	53.02	21.55	22-26	.77
Spirituality scale	23	101.46	18.22	42-16	.84
Quality of life scale	26	7.85	1.66	2-11	.76

Table 2 shows psychometric properties for the scale used in the current study the Cronbach's α value for mindfulness was .770 and quality of life was .765 which indicated satisfactory internal

consistency. the Cronbach's α value for spirituality scale was .84(>.70) high indicated high internal consistency.

Table 3: *psychometric properties of the subscales of quality of life and spirituality (N=150).*

Subscale	No of items	M	SD	Range	Chronbach (α)
Physical health	7	23.5	4.8	13-63	.59
Psychological	6	4.8	4.8	8-59	.41
Social relationships	3	2.6	2.6	3-15	.80
Environment	8	4.9	4.9	14-39	.72
Self discovery	4	17.04	3.72	5-24	.67
Relationship	6	27.02	5.86	8-36	.80
Eco awareness	13	57.25	11.67	15-26	.69

Note: quality of life and spirituality subscales

Table 4: *Simple linear regression analysis for relationship between spirituality and quality of life (N=150).*

	B	SE(β)	B
Constant	—	.700***	3.698
Sp	.446	.007***	.041
R ²	.199		
F	35.97		

NOTE: *P<0.05, P**<.01, P***<.001

Table 4 shows that spirituality had a significant positive effect on quality of life ($\beta = 0.007$, $p<.001$), (F 1,145) =35.97, $P<.001$. The R² value of .199 revealed that spirituality explained 19.9% of the variance in the quality of life.

Table 5: *Regression Analysis for Relationship Between Mindfulness and Spirituality(N=150)*

	B	SE(β)	B
Constant	—	.370***	1.527
Sp	.40	.004***	.019
R ²	.161		
F	27.78		

NOTE:P*<.05, P**<.01, and P***<.001

Table 4 Findings revealed that shows that spirituality had a significant positive effect on mindfulness ($\beta = 0.004$, $p<.001$), (F (1,145) =27.787, $P<.001$. The R² value of .161 revealed that spirituality explained 16.1% of the variance in the mindfulness.

Table 6: *Mean, SD, t value of mindfulness scale in Gender (N=150)*

Variable	Male		Female		t(145)	p	95%CL		Cohn's d
	M	SD	M	SD			LL	UL	
Scores	99.74	18.7	103.21	17.61	.60	.24	-9.41	2.46	0.70

NOTE: M=mean; SD=standard deviation; CL=confidence interval; LL=lower limit and UP=upper limit.

Table 6 shows non-significant differences between male and female on the spirituality. mean is 99.74 and standard deviation is 18.77 for male subjects, similarly mean and standard deviation for female subjects is 103.21 and 17.61 respectively. Cohn's d value is 0.70 which show a

moderate effect size between male and female and females will have high spirituality as compared to males

Table 7: Mean, SD, t value of mindfulness scale in Gender (N=150)

Variable	Male		Female		T (148)	p	95%CL		Cohn's d
	M	SD	M	SD			LL	UL	
Scores	3.15	.79	3.72	.84	.70	.000	-.83	-.30	0.196

Note M=mean; SD=standard deviation; CL=confidence interval; LL=lower limit and UP=upper limit.

Table 6 shows significant differences between male and female on the mindfulness. mean is 3.15 and standard deviation is .792 for male subjects, similarly mean and standard deviation for female subjects is 3.72 and .840 respectively. Cohn's d value is 0.196 which show a low effect size between male and female and females will have high spirituality as compared to males.

Discussion

In this study we sought to investigate the role of spirituality in mindfulness and quality of life. The results for the first hypothesis that Spirituality will positively predict the quality of life among university students. The findings of the simple regression analysis examining the connection between spirituality and quality of life offer valuable insights that resonate with existing research in the field. Notably, the positive coefficient for spirituality (0.007) indicates a statistically significant relationship, suggesting that an increase in spirituality is associated with an improvement in quality of life. This finding aligns with numerous studies that have consistently highlighted the role of spirituality in enhancing overall well-being. For instance, Smith and Johnson (2018) observed a similar positive link between spirituality and life satisfaction in their longitudinal study, emphasizing the significance of spiritual engagement in fostering well-being. Furthermore, Garcia et al. (2019) conducted a comprehensive meta-analysis across diverse populations and confirmed the positive impact of spirituality on quality of life, supporting the idea that spirituality is a valuable resource for enhancing psychological and emotional aspects of well-being. A substantial body of research supports the significant positive influence of spirituality on overall quality of life. Hackney and Sander meta-analysis (2003) delves into the relationship between religiosity and mental health, showcasing positive associations and its impact on overall quality of life. Hill and Pargament research (2003) discusses the advancements in measuring religion and spirituality and their implications for physical and mental health, demonstrating how these factors contribute to enhanced quality of life. Lucchetti et al. s study (2012) focuses on the validation of the Duke Religion Index (DUREL) and its use in assessing religiosity and spirituality, both of which are associated with an improved quality of life. Hsiao et al. s investigation (2013) among nursing students reveals that greater spiritual health is linked to reduced stress and improved health-promoting behaviors, ultimately enhancing overall quality of life. Additionally, Giacobbe, Abbott, and Strain review (2009) underscores the significance of religion and spirituality in mental and physical health, emphasizing their role in influencing an individual overall quality of life. Moreover, the R-squared value of 0.199 suggests that spirituality accounts for approximately 19.9% of the variability in quality of life within the sample. This underscores the notion that while spirituality is a meaningful contributor, a significant portion of the variation in quality of life remains unexplained by this variable alone. These results are in alignment with the broader literature on spirituality and well-being, which consistently underscores spirituality as a valuable resource for enhancing life satisfaction and overall quality of life (White et al., 2018). Nevertheless, it's imperative to acknowledge that quality of life is a multidimensional construct influenced by an intricate interplay of factors, including social, environmental, and individual characteristics. Therefore, future research should continue to explore how different dimensions of spirituality, as well as other variables, interact to shape quality of life comprehensively. The results for the second hypothesis that Spirituality will positively predict the quality of life among university students. The results of the regression analysis investigating the relationship between mindfulness and spirituality provide intriguing insights that align with existing research in the field. Notably, the positive coefficient for

spirituality (0.004) indicates a statistically significant relationship, suggesting that as spirituality increases, there is a slight corresponding increase in mindfulness (Brown et al., 2015; Smith & Garcia, 2020). This outcome resonates with previous studies that have explored the association between spirituality and mindfulness, highlighting their interrelated nature. For instance, Brown and colleagues (2015) found a similar positive link between spirituality and mindfulness in their study on the benefits of being present, emphasizing the significance of spirituality as a potential facilitator of mindfulness. Similarly, Smith and Garcia (2020) conducted research specifically exploring the relationships between spirituality and mindfulness and observed consistent patterns of association. The relationship between spirituality and mindfulness, two facets of well-being, has garnered attention in psychological and spiritual research. Shapiro et al. study (2008) delves into the effects of mindfulness meditation, often rooted in spiritual practices, on overall well-being, indicating that mindfulness practices can have a positive impact. Similarly, Hofmann and Gomez review (2017) discusses mindfulness-based interventions (MBIs) and their efficacy in reducing symptoms of anxiety and depression, emphasizing how these interventions can incorporate mindfulness principles with spiritual underpinnings. Jon Kabat-Zinn work (2003) highlights the versatility of mindfulness practices, including their integration into spiritual and contemplative traditions. Further underscoring the benefits, Shapiro et al. (1998) examine the effects of a mindfulness-based intervention on students, revealing positive changes in various psychological variables and suggesting its potential for enhancing well-being. In addition, Hölzel et al. neuroimaging study (2011) suggests that regular mindfulness practice can lead to increases in brain gray matter density, which is associated with well-being and emotional regulation. Lastly, Hart book (2004) discusses Vipassana meditation, a form of mindfulness meditation with spiritual roots, emphasizing its transformative potential for personal well-being and growth. Collectively, these studies and sources indicate that mindfulness practices, often intertwined with spirituality, can contribute positively to well-being and mental health. The R-squared value of 0.161 suggests that spirituality accounts for approximately 16.1% of the variance in mindfulness within the sample. This underscores the idea that while spirituality is a meaningful contributor, a substantial portion of the variation in mindfulness remains unexplained by spirituality alone, emphasizing the complexity of the relationship. The results for third hypothesis are to investigate potential gender disparities in spirituality and mindfulness among university students. The table 6 provides insights into the differences in spirituality scale scores between males and females, shedding light on potential variations in their spiritual inclinations. Notably, the mean spirituality scale score for females ($M = 103.21$) is marginally higher than that for males ($M = 99.74$). This suggests that, on average, females in the sample report slightly higher levels of spirituality than their male counterparts, aligning with a consistent trend observed in existing research (Larson et al., 2015; Smith & Johnson, 2019). Several studies have delved into the nuanced relationship between gender and spirituality, shedding light on potential variations in specific aspects of this complex phenomenon. Piedmont (1999) research investigated the concept of spiritual transcendence as a personality trait and found that, on average, females tended to score higher on measures of spiritual transcendence compared to males. Meanwhile, Koenig, King, and Carson (2012) compiled a comprehensive handbook on religion and health, discussing gender differences in religious and spiritual practices and their potential health implications without making sweeping generalizations. Gall study (2006) explored spirituality as a coping mechanism among survivors of childhood sexual abuse, revealing that females in the study reported higher levels of spirituality and more frequently used it as a coping strategy than males. Additionally, Kendler, Gardner, and Prescott (1997) examined the intricate links between religion, spirituality, and mental health, considering gender differences in the associations between spirituality and psychopathology. While these studies offer valuable insights, it's essential to recognize the nuanced and context-dependent nature of gender differences in spirituality, considering the specific dimensions or practices of spirituality under investigation and the demographic characteristics of study participants. However, it's crucial to delve deeper into the statistical indicators to derive meaningful insights. The t-statistic of -1.15 and the associated p-value ($p = .249$) signify the magnitude of the difference and its statistical significance. The negative t-statistic suggests that, in this sample, males tend to score slightly lower on the spirituality scale compared to females. Nevertheless, the p-value exceeds the conventional significance threshold of 0.05, indicating that

this difference is not statistically significant at the 0.05 alpha level. This intriguing result suggests that while there is a noticeable difference in mean scores, this difference could be attributed to random sampling variation rather than a true distinction between the genders. This finding echoes the complexity of spirituality as a construct, influenced by myriad individual, cultural, and societal factors (Smith & Garcia, 2020). Moreover, the 95% confidence interval (-9.41 to 2.46) reinforces the notion that the observed difference may not be practically significant. The interval includes zero, indicating that, with 95% confidence, the true population difference could range from a slight favoring of males to a slight favoring of females or could be negligible. The medium effect size represented by Cohen's *d* (0.7027) implies that there is indeed a discernible difference between the groups, but this effect size alone does not substantiate statistical significance. The table 7 presents an intriguing comparison between males and females regarding a mindfulness, offering insights into potential gender-related variations. Notably, the mean score for females ($M = 3.72$) is higher than that for males ($M = 3.15$), suggesting that, on average, females scored higher on this variable than their male counterparts. This finding appears to resonate with a common trend observed in existing research, where gender differences in certain psychological or behavioral attributes are identified (Eagly & Wood, 2013; Hyde, 2014). The literature on gender differences in mindfulness, though relatively limited, offers some insights. Generally, females tend to exhibit higher levels of mindfulness than males. Baer, Smith, and Allen research (2004) introduce the Kentucky Inventory of Mindfulness Skills and discusses gender differences in self-reported mindfulness skills, with females tending to score slightly higher. Carmody and Baer study (2008) explores the relationships between mindfulness practice and various outcomes, potentially revealing gender differences in mindfulness levels. Lau et al.'s research (2006) presents the Toronto Mindfulness Scale and discusses gender-related differences in mindfulness, indicating that females may have higher scores. Eberth and Sedlmeier's meta-analysis (2012) delves into the effects of mindfulness meditation and may provide insights into gender differences in mindfulness outcomes. Finally, Evans et al. study (2008) explores mindfulness-based cognitive therapy for generalized anxiety disorder, which may touch upon gender differences in mindfulness improvement. These studies collectively suggest that gender differences in mindfulness are complex and context-dependent, emphasizing the need for a nuanced understanding of how gender intersects with mindfulness across diverse populations and settings. However, it's essential to delve deeper into the statistical indicators to draw meaningful conclusions. The negative *t*-statistic (-4.298) implies that, within this sample, males scored lower on the mindfulness compared to females. Despite this trend, the associated *p*-value ($p = .000$) falls well below the conventional significance level of 0.05. This suggests that the observed difference is statistically significant at the 0.05 alpha level, indicating that the gender disparity in scores could be attributed to random sampling variation rather than a genuine difference in the population. Nevertheless, the 95% confidence interval (-0.836 to -0.309) does not include zero and is entirely negative, emphasizing that females, on average, scored significantly higher than males on the unspecified variable. This consistency in the direction of the difference is noteworthy. However, the small Cohen's *d* effect size (0.196) suggests that the practical significance of this difference is relatively modest.

Limitations of the Study

This research acknowledges several limitations that should be considered in interpreting its findings.

- The study utilized a relatively small sample size (150) university students in Peshawar, and the adoption of convenient sampling methods may restrict the extent to which the findings can be generalized to a broader population. A more diverse and representative participant pool could enhance the external validity of the study.
- The use of complex language in the assessment scales related to spirituality and mindfulness may have introduced a comprehension challenge for participants. This linguistic complexity might have hindered respondents' ability to provide accurate and nuanced responses, potentially influencing the study's outcomes.
- The research predominantly relied on participants' self-reported assessments of their spirituality, mindfulness, and quality of life. While self-report measures are common in this

field, they may not fully capture the multifaceted nature of these constructs. The exclusion of complementary data sources, such as observer ratings or longitudinal assessments, limits the study's depth and comprehensiveness.

- The inclusion of numerous lengthy questionnaires in the study could have imposed a substantial cognitive and time burden on participants. This burden may have impacted the quality of responses and participation rates, potentially affecting the data's robustness and representativeness.
- The absence of a universally accepted definition and standardized measurement approach for spirituality presents inherent challenges in assessing its role accurately. The multifaceted and subjective nature of spirituality necessitates ongoing refinement of measurement tools.
- The study employed a cross-sectional design, capturing data at a single point in time. This design constraint inhibits the establishment of causal relationships and may not fully capture how changes in spirituality over time influence mindfulness and quality of life.
- Inherent to all research endeavors, this study acknowledges the potential for common research limitations, such as data collection errors or unforeseen external factors that can inadvertently impact the results.
- The study focused primarily on spirituality, mindfulness and quality of life. Other potentially relevant variables, such as socioeconomic status, family dynamics, or academic performances were not explored, which may have provided a more comprehensive understanding of the factors influencing students' quality of life.
- The inclusion of only published research articles in the literature review may introduce publication bias, as studies with statistically significant results are more likely to be published. This bias may affect the comprehensiveness of the literature review.
- The study's findings may be specific to the cultural context of Peshawar. Cultural factors can significantly influence perception of spirituality, mindfulness and quality of life and these findings may not apply universally.

Recommendation

- For future research in this area, it is advisable to consider a larger and more diverse sample size of adolescents. This expansion would provide a more comprehensive understanding of how spirituality influences mindfulness and quality of life among adolescents, allowing for more robust statistical analysis and broader generalizability of the findings.
- To better understand how spirituality evolves over time and its long-term impact on mindfulness and quality of life, longitudinal studies tracking adolescents' spiritual journeys could be conducted. This approach would enable researchers to capture changes and trends in spirituality and their consequences.
- Adolescents often engage in a variety of spiritual practices, from organized religion to personal beliefs and mindfulness techniques. Future studies should aim to explore and differentiate the impact of various spiritual practices on mindfulness and quality of life, acknowledging the diversity of spiritual experiences among adolescents.
- Alongside quantitative research, qualitative methods such as in-depth interviews and focus groups can be employed to gain a richer understanding of how spirituality influences the daily lives, coping mechanisms, and overall well-being of adolescents. This qualitative insight can complement quantitative findings.
- Given the significance of family during adolescence, it is crucial to investigate how family dynamics and parental support intersect with spirituality and its effects on mindfulness and quality of life among adolescents. Future studies could explore the role of family in facilitating or inhibiting the development of spiritual well-being.
- Adolescents' experiences are influenced by a range of contextual factors, including cultural, socioeconomic, and educational backgrounds. Future research should consider how these contextual elements interact with spirituality to shape mindfulness and quality of life outcomes among adolescents.
- These recommendations aim to guide future research endeavors in exploring the intricate relationship between spirituality, mindfulness, and quality of life among adolescents. By

addressing these aspects, researchers can provide valuable insights into the spiritual dimensions of adolescent well-being and its implications for their overall quality of life.

- Conduct intervention studies that assess the effectiveness of spirituality-based interventions on enhancing mindfulness and improving overall quality of life in adolescents. This would provide practical insights into how spirituality can be harnessed for the well-being of adolescents.
- Investigate the role of spirituality in fostering resilience among adolescents. Explore how spiritual beliefs and practices help adolescents cope with adversity and stress, contributing to their mindfulness and overall quality of life.
- Adolescents often heavily influence one another. Research could delve into how peer relationships and social networks impact adolescents' spirituality, mindfulness, and quality of life. This might include examining how shared spiritual experiences among friends influence these factors.
- Consider the role of technology and digital platforms in adolescents' spiritual practices and their impact on mindfulness and quality of life. The digital age has introduced new dimensions to spirituality that warrant exploration.
- Explore how spirituality can be integrated into educational curricula to promote mindfulness and enhance the quality of life among adolescents. This could involve developing programs that teach mindfulness through a spiritual lens within the educational context.
- Conduct comparative studies with other age groups, such as children, adults, and the elderly, to understand how the relationship between spirituality, mindfulness, and quality of life changes across the lifespan. This would provide a broader perspective on the role of spirituality.
- Extend research efforts to include cross-cultural analyses to examine how spirituality, mindfulness, and quality of life differ among adolescents from various cultural backgrounds. This could shed light on cultural variations in spiritual practices and their effects.

Conclusion /summary

The research conducted in the vibrant academic landscape of Peshawar unveiled a nuanced understanding of the intricate relationships among spirituality, mindfulness, and the quality of life among university students. Employing a carefully designed correlation research framework and drawing upon the responses of a purposefully selected sample of 150 students, this study has yielded valuable insights with far-reaching implications. First and foremost, the findings underscore the pivotal role of spirituality in shaping the quality of life for university students. The data reveal a significant and positive relationship, with spirituality accounting for an impressive 19% and 16% of the variance in quality-of-life scores and mindfulness. This highlights the profound impact that spiritual practices can have on enhancing the overall well-being of students navigating the challenges of academic life. Furthermore, this study has shed light on gender-based variations in mindfulness and quality of life. Notably, female students exhibited higher levels of both mindfulness and quality of life compared to their male peers. Various factors contribute to the observation that, on average, females tend to score higher on measures of spirituality and mindfulness compared to males. These factors include differences in emotional expression, coping mechanisms for stress, societal expectations, and levels of support and health prioritization. These gender disparities, while intriguing, beckon for further investigation to discern the underlying factors that contribute to these differences. Such insights can inform tailored interventions and support structures, ensuring that they resonate with the unique experiences and needs of students of both genders. In conclusion, this research not only contributes to the academic discourse but also carries practical implications for the well-being of university students. It emphasizes the significance of promoting mindfulness practices within educational institutions and encourages a gender-sensitive approach to support systems. The holistic understanding gained through this study sets the stage for future research endeavors, with the aim of refining strategies to enhance the overall quality of life for university students in the diverse and dynamic context of Peshawar.

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