

SPIRITUAL INTELLIGENCE, SOCIAL SUPPORT AND QUALITY OF LIFE  
AMONG PATIENTS DIAGNOSED WITH CHRONIC KIDNEY DISEASE



ZAINAB BIBI  
(01-275212-020)

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## Approval for Examination

Scholar's Name: Zainab Bibi

Registration No. 01-275212-020

Programme of Study: Masters in Clinical Psychology

Thesis Title:

Spiritual intelligence, social support and quality of life among patients diagnosed with chronic kidney disease.

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**Date:** 07.08.2023

**Name:** Dr. Noshi Iram Zaman

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## **DEDICATION**

*Dedicated to my parents, who always loved, nurtured and supported me. To all my Teachers who have been my source of inspiration. My siblings and finally my friends who have always supported and encouraged me in my Endeavours.*

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## ABSTRACT

The current study is about the spiritual intelligence, social support and quality of life among patients diagnosed with chronic kidney disease. There is a gap in existing literature which is significant to be explored. Globally there are few studies about the concerned issues in the undergoing study but no such study has been done by taking variable i.e., spiritual intelligence, social support and quality of life globally in general and in Pakistan's context particularly. This study followed quantitative research design and this study is based on Correlational research design. Purposive sampling method was used in this study. The sample comprising of 196 (n=96 Men, n=100 Women) diagnosed patients with chronic kidney disease, married and unmarried with an age ranging from 16 years to 66 years with different educational background. The data was collected from different hospitals of Islamabad and Rawalpindi including Institute of Urology and Transplantation Rawalpindi, Benazir Bhutto Hospital Rawalpindi and PIMS. The data was collected through a research questionnaires which are adapted versions and Likert point scales The spiritual intelligence self-report inventory translated by Khalid & Kausar (2006), Multidimensional scale of perceived social support translated by Zafar & Kausar (2013) and the third scale to measure quality of life World Health Organization Quality of Life scale translated by kayani & Kausar (2013) . Further collected data was analysed quantitatively. Complete research ethical protocol was followed and only consented participants were be included in the study. Data was analysed by using SPSS version 27. For parametric data, an independent sample t-test was to assess the mean difference between two groups. Along with that, additional statistical tests i.e., Pearson correlation coefficient and Moderation Analysis were applied. Results suggested that higher spiritual intelligence was directly correlated to better quality of life and social support's domain Family support playing role of moderator between spiritual intelligence and quality of life.

Keywords: Spiritual Intelligence, Quality of life, Patients with Chronic Kidney Disease, Social Support, Chronic kidney disease.

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**LIST OF ABBREVIATIONS**

CKD	-	Chronic Kidney Disease
HD	-	Haemodialysis
QOL	-	Quality of life
WHO	-	World Health Organization
ESRD	-	End-stage renal disease
HRQoL	-	Health related quality of life
SS	-	Social Support
SI	-	Spiritual Intelligence

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## CHAPTER 1

### INTRODUCTION

The current study is about the spiritual intelligence, social support and quality of life among patients diagnosed with chronic kidney disease (CKD). This research aimed to investigate the role of spiritual intelligence and social support in quality of life among patients with CKD, while spiritual intelligence and social support being independent variables and affecting the dependent variable which is quality of life.

Chronic kidney disease (CKD) is one of the greatest dangers to human health today. In CKD, one's kidneys are no longer able to effectively filter one's blood, this puts the person's health at risk. Most persons with the condition don't have any symptoms in the beginning. However, when kidney disease progresses, wastes in the blood might make one feel ill. Other issues, including as hypertension, anemia, bone and muscle weakness, inadequate nutrition, and nerve damage, may also manifest themselves. Due to their importance in so many processes, kidney failure also raises the likelihood of developing cardiovascular disease. These conditions often develop gradually and asymptotically, but they can ultimately cause renal failure, which can strike at any time. Dialysis or a kidney transplant are the only ways to keep living once the kidneys fail (Griva et al., 2020; Levin et al., 2017). CKD, or chronic kidney disease, is a broad term for a group of conditions that impair kidney function and have persisted for more than three months (Stevens, Levin, & Members, 2013).

At its worst phase, CKD can progress into end-stage renal disease. It is a major growing health issue in developed and developing countries worldwide (Zhang & Rothenbacher, 2008), including Malaysia (Malaysia & Kerajaan, 2011). The prevalence in West Malaysia itself was found to be 9%, which is similar to what was reported in other Asian countries (Hooi et al., 2013). Therefore, it is crucial to study the effects of CKD as it is associated with increased hospitalisation, cardiovascular disease and

mortality (Poppe, Crombez, Hanoulle, Vogelaers, & Petrovic, 2013) that would significantly cause human, economic and social burdens on the nation's health care system (Hooi et al., 2013). Consequently, much research has been done in an attempt to understand the factors that influence the condition and its progression in CKD patients.

## **1.1 Background of the study**

### **1.1.1 Chronic Kidney Disease (CKD) and Dimensions**

Chronic Kidney Disease (CKD) has emerged as a significant global health concern in recent decades, affecting millions of individuals and placing an enormous burden on healthcare systems worldwide (WHO, 2020). CKD is a progressive and irreversible condition characterized by a gradual loss of kidney function over time. It can lead to various complications, including end-stage renal disease (ESRD), requiring dialysis or kidney transplantation, which can significantly impact patients' quality of life and increase healthcare costs (Levey et al., 2020).

The prevalence of CKD has been steadily rising over the years due to various factors, such as population aging, the increasing prevalence of diabetes and hypertension - two of the major risk factors for CKD, and lifestyle changes leading to a rise in obesity rates (Liyanage et al., 2015; Jha et al., 2013). According to the World Health Organization (WHO), CKD affects about 10% of the global population, making it a significant public health issue with far-reaching consequences (WHO, 2020).

The impact of CKD on affected individuals is multifaceted and extends beyond its physical manifestations. Patients with CKD often experience a myriad of symptoms, including fatigue, loss of appetite, muscle weakness, and sleep disturbances, leading to reduced overall functional capacity and compromised daily living (Babaei et al., 2021). As the disease progresses, patients may develop complications such as anaemia, cardiovascular disease, and bone disorders, further diminishing their quality of life and overall well-being (Levin et al., 2017).



Moreover, CKD exerts a substantial emotional and psychological toll on patients, as they grapple with the diagnosis of a chronic and potentially life-threatening illness. The uncertainties associated with CKD progression, treatment modalities, and future prognosis can lead to anxiety, depression, and a sense of helplessness (Cukor et al., 2009). Additionally, CKD often requires significant lifestyle adjustments, such as dietary restrictions, medication regimens, and regular medical visits, which can disrupt social and occupational functioning (Bossola et al., 2011).

The economic burden of CKD on healthcare systems cannot be overlooked. The management of CKD, especially in its advanced stages, demands considerable healthcare resources, including specialized medical care, dialysis facilities, and kidney transplantation services (Kolhe et al., 2015). This burden is compounded by the need for long-term management, as CKD typically requires continuous medical attention and monitoring to prevent further complications and disease progression (Tonelli et al., 2017).

In many low and middle-income countries, the challenge of CKD management is exacerbated by limited access to healthcare services, insufficient awareness about CKD among the population and healthcare providers, and financial constraints that hinder optimal disease management (Liyanage et al., 2015). Consequently, the rising prevalence of CKD not only poses a significant challenge to affected individuals but also presents an overwhelming burden to healthcare systems worldwide.

Given the complex and multi-faceted nature of CKD and its impact on individuals and society, it becomes crucial to explore factors that may influence the quality of life and well-being of patients with this condition. Understanding these factors can lead to the development of targeted interventions that aim to enhance the overall health outcomes and quality of life for CKD patients.

One such area of interest is the concept of spiritual intelligence and its potential role in coping with chronic illnesses like CKD. Spiritual intelligence refers to the capacity to explore and understand the deeper aspects of life, find meaning and purpose amidst challenges, and maintain a sense of connectedness with oneself, others, and the universe (Emmons, 2000). Previous research has suggested that individuals with higher levels of spiritual intelligence may exhibit greater resilience and adaptability in the face of chronic illnesses, potentially leading to better overall quality of life (Emmons, 2000; Schutte & Malouff, 2002).

Quality of life, is the subjective perception of one's well-being and life satisfaction, encompassing various dimensions, such as physical, psychological, social, and environmental factors (Diener, 1984; WHOQOL Group, 1998). Since QOL is a multifaceted concept (Zhu, Tam, Lee, Lee, & Li, 2010) that takes into account an individual's physical health, mental health, social functioning, and subjective evaluation and satisfaction, it was susceptible to a wide range of influences. Recipients' QOL scores may drop due to socioeconomic factors like low household income, unemployment, low levels of education, and living alone; physical factors like being female, old, or overweight; clinical factors like a recent critical illness and hospitalisation, treatment side effects, or depression (Gentile et al., 2013).

Health-related quality of life (HRQoL) is the kind of quality of life that is impacted by health-related issues, and it can provide crucial information concerning how the patient is coping with their CKD condition (Pagels, Söderkvist, Medin, Hylander, & Heiwe, 2012). Generally, CKD has a negative effect on sufferers' HRQoL (Poppe et al., 2013). HRQoL was compromised even in the early stages of CKD. Poorer HRQoL is also associated with higher risk of developing end-stage kidney disease, which then predicts mortality and hospitalization (Mapes et al., 2003).

Additionally, social support has been recognized as a crucial factor in mitigating the adverse effects of chronic illnesses. Social support encompasses emotional, informational, and instrumental assistance provided by family, friends, and other social networks (Thoits, 2011). Having robust social support systems has been associated with improved mental health, reduced stress, and better adherence to medical treatments among patients with chronic conditions (Cohen & Wills, 1985).

Several studies demonstrated that social support plays a vital role in helping Haemodialysis patients to cope with their illness and improve their QOL (Davison & Jhangri, 2010; Lucchetti, Almeida, & Granero, 2010). Researcher found a statistically significant relationship between perceived social support and HRQOL and that treatment adherence was associated with perceived social support.

Concepts like The Divinity, religion, and spirituality, which were once considered private issues, are now entered into scientific researches and academic discussion in liberal arts institutions due to their increasing relevance in recent decades. In particular, the number of studies in the fields of psychology and management are

expanding rapidly. Meanwhile, a slew of conferences and seminars are being held to discuss the topic (Kim, 2018). Researchers are only a few of the prominent psychologists who have discussed the research of religious experiences. Such gatherings and conferences help bring together disparate ideas, one of which is spiritual intelligence (Esmaili, Zareh, & Golverdi, 2014).

Despite the potential significance of spiritual intelligence and social support in influencing the quality of life of CKD patients, there remains a knowledge gap in the existing literature. Limited research has explored the interplay between these factors in the context of CKD and how they collectively contribute to patients' overall well-being and adjustment to the disease. Therefore, this research aims to address this gap by investigating the relationship between spiritual intelligence, social support, and quality of life among patients diagnosed with Chronic Kidney Disease.

The findings from this study can potentially shed light on the importance of addressing these psychosocial dimensions in the care and management of CKD patients, leading to more holistic and patient-centred approaches to improve their overall health outcomes and quality of life.

### **1.1.2 Chronic Kidney Disease (CKD) Challenges to Patients**

Chronic Kidney Disease (CKD) poses substantial challenges to patients, affecting various dimensions of their lives and overall quality of life. This section will highlight the significant challenges faced by patients with CKD, including physical, psychological, and social aspects, which collectively contribute to the complexity of managing this chronic condition.

Patients with CKD often experience a range of physical challenges due to the progressive nature of the disease. As kidney function declines, individuals may encounter symptoms such as fatigue, weakness, and decreased exercise tolerance (Mollaoglu, 2020). Additionally, CKD can lead to anemia, a condition characterized by low red blood cell count, resulting in reduced oxygen delivery to tissues and causing further fatigue and weakness (Van der Putten et al., 2016).

Fluid and electrolyte imbalances are also common in CKD, leading to conditions like edema (swelling), hypertension (high blood pressure), and electrolyte disturbances, which can cause symptoms such as muscle cramps and irregular heartbeats (Kamel & Davison, 2015). Furthermore, the accumulation of waste products in the body, such as urea and creatinine, can lead to a condition known as uraemia, resulting in nausea, vomiting, and poor appetite (Weisbord et al., 2015).

CKD significantly impacts the psychological well-being of patients, leading to emotional distress and mental health challenges. The diagnosis of a chronic and potentially life-threatening illness can cause anxiety and depression (Nanayakkara et al., 2018). Patients often experience feelings of uncertainty about their future health, treatment options, and potential disease progression, leading to a sense of helplessness and fear (Cukor et al., 2009).

The burden of adhering to a strict treatment regimen, including medications, dietary restrictions, and frequent medical appointments, can lead to increased stress and frustration (Bossola et al., 2011). Moreover, the prospect of dialysis or kidney transplantation can be overwhelming and anxiety-inducing for many patients, impacting their emotional well-being and coping mechanisms (Ng et al., 2019).

Social aspects play a crucial role in the lives of CKD patients, and the disease can significantly impact their social relationships and support networks. As the disease progresses, patients may experience limitations in their ability to engage in social activities and hobbies due to physical symptoms and treatment requirements (Jhamb et al., 2013). This isolation can lead to feelings of loneliness and social withdrawal, negatively affecting their overall quality of life (Chilcot et al., 2018).

Furthermore, the financial burden of managing CKD, including medical expenses and potential loss of employment due to physical limitations, can strain the patient's financial resources and place stress on the family unit (García-García et al., 2016). Consequently, maintaining a strong social support system becomes crucial for patients with CKD. However, the unpredictability of the disease and the associated emotional distress can sometimes strain relationships with family and friends, making it challenging to receive the needed support (Purnell et al., 2019).

The combination of physical, psychological, and social challenges faced by patients with CKD culminates in a significant impact on their overall quality of life. The

burden of managing symptoms, adhering to complex treatment regimens, and coping with emotional distress can lead to a diminished sense of well-being and decreased overall life satisfaction (Lopes et al., 2020).

CKD patients may experience reduced physical functioning, leading to limitations in daily activities and decreased independence (Mollaoglu, 2020). Psychological distress, including anxiety and depression, can further contribute to a diminished quality of life, affecting mental health and emotional stability (Nanayakkara et al., 2018). The challenges in maintaining social connections and support networks can lead to feelings of isolation and loneliness, negatively impacting the patient's social well-being (Chilcot et al., 2018).

In short, the challenges faced by patients with CKD in terms of physical, psychological, and social aspects are interconnected and contribute to the complexity of managing this chronic condition. Addressing these challenges is essential for improving the overall quality of life and well-being of CKD patients. Understanding the multifaceted impact of CKD can guide the development of comprehensive and patient-centred interventions aimed at enhancing the quality of life and promoting better health outcomes for these individuals.

### **1.1.3 Management of Chronic Kidney Disease (CKD)**

In the end stages of chronic kidney disease (CKD), the kidneys are no longer able to regulate metabolic functions, fluid, and electrolyte balance in the body, and toxins, especially uremic products, accumulate in the blood (Brito & Pavarini, 2012). Including the price of kidney transplants, the yearly cost of maintenance therapy for patients around the world was \$70–75 billion in 2001. Medical expenses for chronic kidney disease patients have skyrocketed in recent years, placing a heavy burden on health care systems worldwide but notably in developing nations, due to the disease's rising prevalence and the rising costs of related equipment and services.

Haemodialysis is the primary method of treatment in Iran and many other countries (Zhang & Rothenbacher, 2008), despite the fact that kidney transplantation is the gold standard treatment for CKD. Nearly nine in ten people with chronic kidney

disease in the United States, China, Japan, Brazil, and Mexico were on haemodialysis by the end of 2016. The majority of these patients, or 29,200 persons, had undergone haemodialysis by the end of 2016, and the number of dialysis patients increased by 4–5% in Iran in 2016 alone (Jablonski, 2007).

Previous research has shown that although haemodialysis improves survival rates for people with renal failure, it also causes significant lifestyle modifications and diminishes their quality of life. The high expense, pain, and need for repetition that come with hemodialysis make it a difficult practice that can have lasting repercussions on a patient's ability to work and further their education. Patients with CKD on haemodialysis may experience a variety of psychological and social difficulties as a result (Eslami, Rabiei, Shirani, & Masoudi, 2018). Suggesting that patients with kidney failure have a wide range of difficulties because of their unique medical conditions (Ashrafi, Ebrahimi, & Sarafha, 2014), and these difficulties persist even in the latter stages of the disease, when patients' functional status and quality of life are severely diminished (Hashemzadeh et al., 2020). Many psychological issues arise as a result (Feroze, Martin, & Reina-Patton, 2010), including but not limited to: hopelessness; personality disorders; anxiety disorders; and sadness; and fear of death; and difficulty to adjust to stressful situations.

In light of above mentioned researches in recent years, there has been a growing recognition of the importance of considering quality of life (QoL) as a vital aspect of the treatment and management of Chronic Kidney Disease (CKD) patients. Traditionally, CKD management focused primarily on clinical parameters such as laboratory values, disease progression, and treatment efficacy. However, the acknowledgment that CKD profoundly affects patients' well-being beyond physical health has led to a paradigm shift in healthcare approaches.

A holistic approach to CKD management recognizes that the impact of the disease extends beyond physical symptoms and involves the psychosocial and emotional aspects of patients' lives (Jhamb et al., 2013). Patients with CKD face unique challenges related to their physical functioning, mental health, and social interactions, which significantly influence their overall QoL. Neglecting these aspects can lead to suboptimal treatment outcomes and a reduced sense of well-being for patients.

QoL in CKD patients encompasses their physical functioning, symptom burden, and overall health perception. Patients undergoing dialysis or living with advanced CKD

often experience fatigue, sleep disturbances, and pain, which impact their ability to engage in daily activities and maintain independence (Babaei et al., 2021). Addressing and alleviating these physical symptoms through appropriate medical management can significantly improve patients' daily functioning and enhance their QoL.

Patients' QOL, social and financial circumstances, and mental health are all negatively impacted by ESRD (Zimet, Dahlem, Zimet, & Farley, 1988). There is a clear need for increased social support in hemodialysis patients because of issues including lower quality of communication with family and friends brought on by chronic disease conditions (Al Zaben et al., 2015). Research found that those with facilitators like hope and social support adapted to living with chronic illness more quickly (Al Zaben et al., 2015). Along with physical, mental, and social well-being, spirituality is one of the four pillars of holistic health.

All point to the potential influence of religious and spiritual beliefs, practices, and experiences on health (Park et al., 2007). One of the most effective ways of managing chronic illness is through one's spiritual life. Health literacy is essential for the management of physical and mental health (Beusterien et al., 1996). Spiritual support has been shown to improve patients' ability to adapt to the onset of disease and speed up their recovery. Maintaining or enhancing quality of life is possible when people are able to use health information to make decisions about their healthcare, disease prevention, and health promotion (Lopes et al., 2002).

Researcher found that college students who felt they had social support from their peers reported feeling happier overall (Weber & Cummings, 2003). According to Wang (2014), an individual's perception of social support is comprised of the following elements: emotional concern, reassurance, guidance, and the provision of knowledge or incentive. Female university students in Jordan reported higher levels of social support from their peers than their male counterparts (Hamdan-Mansour & Dawani, 2008).

University students face many social and cultural challenges, such as adjusting to a new environment or feeling overwhelmed by academic or financial demands (Mansour, Halabi, & Dawani, 2008). However, the perceived social support provided by families was higher than that provided by friends (Zaitawi, 1999). Perceived social support provided by families, friends, or significant others playing an important role in adjusting university students' lives and enhancing the life's satisfaction (Putral & Fauzi,

2015) despite the fact that some students may overcome these challenges well while others may experience high levels of stress and low life satisfaction as negative responses for these challenges.

Furthermore, CKD patients frequently experience psychological distress due to the chronic and progressive nature of the disease (Nanayakkara et al., 2018). Anxiety, depression, and feelings of uncertainty about the future can negatively affect their emotional well-being. Integrating psychological support and counselling services into CKD management can help patients cope with the emotional challenges and improve their mental health outcomes.

#### **1.1.4 Social Support and Relationships**

Social support plays a crucial role in shaping the QoL of CKD patients. The disease's burden often leads to changes in social interactions, and patients may experience reduced social participation and isolation (Chilcot et al., 2018). Family, friends, and peer support are essential for helping patients navigate the challenges of CKD, providing emotional encouragement, and assisting with treatment adherence (Cohen & Wills, 1985). Strong social networks can enhance patients' resilience, coping mechanisms, and overall QoL.

Adopting a patient-centered care approach is central to improving QoL in CKD management. This involves actively involving patients in the decision-making process, acknowledging their unique needs and preferences, and tailoring treatments accordingly (Tong et al., 2015). By understanding the individual experiences and values of CKD patients, healthcare providers can optimize treatment plans, address specific concerns, and enhance overall patient satisfaction and QoL.

Shared decision-making is a critical component of patient-centered care and involves open communication between patients and healthcare providers. Involving patients in discussions about treatment options, potential risks, and benefits empowers them to make informed choices that align with their values and lifestyle (Schwartz et al., 2016). Collaboratively setting treatment goals ensures that interventions focus not only on clinical outcomes but also on improving QoL aspects that matter most to patients. In



conclusion, recognizing the importance of QoL in CKD management represents a significant step towards providing more comprehensive and patient-centric care. A holistic approach that considers physical, psychological, and social well-being ensures that CKD patients receive the support and interventions they need to enhance their overall QoL. Integrating psychosocial support, promoting social connections, and involving patients in the decision-making process are crucial elements in optimizing CKD management and improving patient outcomes. By addressing QoL concerns alongside clinical parameters, healthcare providers can better meet the unique needs of CKD patients, leading to improved well-being and overall treatment efficacy.

### **1.1.6 Spiritual intelligence (SI) and Chronic Kidney Disease (CKD)**

Spiritual intelligence (SI) is an evolving concept that has garnered increasing interest in the field of health and well-being. It refers to an individual's capacity to explore and understand the deeper aspects of life, find meaning and purpose amidst challenges, and maintain a sense of connectedness with oneself, others, and the universe. In the context of chronic illnesses, including Chronic Kidney Disease (CKD), spiritual intelligence plays a significant role in how individuals cope with the physical, emotional, and existential dimensions of their health journey.

Spiritual intelligence encompasses dimensions beyond traditional intelligence and emotional intelligence. It involves self-awareness, compassion, wisdom, and a capacity to transcend the self and seek a broader understanding of life's meaning and purpose (Emmons, 2000). This intelligence does not necessarily rely on religious beliefs but embraces diverse spiritual and philosophical perspectives.

Individuals with high levels of spiritual intelligence tend to exhibit resilience and coping strategies that enable them to navigate the challenges of chronic illnesses effectively. They may draw upon inner resources, such as hope, faith, and inner peace, to cope with stress, uncertainty, and the emotional burden associated with their health condition (Schutte & Malouff, 2002). Recent years have seen an uptick in writing that specifically addresses spiritual health and how it affects a person's physical, social, and mental wellbeing (Rovers & Kocum, 2010). Several research looked into the spiritual health of college students; research found that both male and female college students

reported relatively high levels of spiritual well-being. Better college adjustment (Kneipp, Kelly, & Cyphers, 2009), greater participation in health-promoting behaviors (Hsiao, Chien, Wu, Chiang, & Huang, 2010), greater quality of life and happiness (Khalek, 2010), and greater social support were all associated with spiritual well-being (Taliaferro, Rienzo, Pigg, Miller, & Dodd, 2009).

In the context of CKD, individuals face a myriad of physical symptoms, emotional distress, and lifestyle adjustments that can be overwhelming. Spiritual intelligence can serve as a resource to help patients cope with these challenges. Patients may find solace in their spiritual beliefs or practices, drawing strength and support from a sense of connectedness to a higher power or a broader sense of purpose (Cukor et al., 2009).

Spiritual intelligence can also foster acceptance and meaning-making in the face of chronic illnesses. Patients with CKD often confront uncertainties about their health, prognosis, and treatment outcomes. Spiritual intelligence may enable them to find meaning in their suffering, develop a sense of acceptance, and embrace their health journey as part of a broader life purpose (Lauri, 2018).

Furthermore, spiritual intelligence can influence patients' emotional well-being. Patients who exhibit spiritual intelligence may experience lower levels of anxiety and depression and have a greater ability to manage emotional distress related to their health condition (Emmons, 2000; Nanayakkara et al., 2018). This emotional resilience can positively impact their overall quality of life and mental health outcomes.

Incorporating spiritual intelligence in CKD management can be beneficial for patients' well-being and coping mechanisms. Healthcare providers can engage in open and non-judgmental discussions about patients' spiritual beliefs and practices. By acknowledging and respecting patients' spiritual perspectives, providers can help patients draw upon their spiritual resources to cope with their health challenges effectively (Hill & Pargament, 2003).

Integrating spiritual support and counselling services in CKD care can be valuable for patients seeking guidance and meaning-making in their health journey. Support groups that foster a sense of community and shared spiritual experiences can provide an additional source of strength and comfort for patients (Thapa et al., 2019). By recognizing and promoting spiritual intelligence in CKD management, healthcare

providers can support patients in their journey of self-discovery, resilience, and holistic well-being. Understanding the role of spiritual intelligence in coping with chronic illnesses can lead to more patient-centred and comprehensive approaches to enhance the overall health outcomes and quality of life of individuals living with CKD.

### **1.1.7 Social support and Chronic Kidney Disease (CKD)**

Social support is a vital component in the lives of patients with chronic illnesses, including Chronic Kidney Disease (CKD). It encompasses emotional, informational, and instrumental assistance provided by family, friends, and social networks. The presence of a strong and supportive social network can significantly impact patients' emotional well-being and overall quality of life. This section will discuss the crucial role of social support in the lives of patients with chronic illnesses and its potential effects on their psychological and emotional well-being.

Receiving emotional support from loved ones can profoundly affect how patients cope with the challenges of living with a chronic illness like CKD. A supportive social network can offer empathy, understanding, and validation of patients' emotions, making them feel less isolated and overwhelmed by their condition (Cohen & Wills, 1985). Emotional support plays a significant role in mitigating the negative effects of stress and anxiety, promoting psychological resilience, and enhancing patients' ability to adapt to the demands of their illness (Nanayakkara et al., 2018).

Patients who feel emotionally supported are more likely to engage in positive coping strategies, such as problem-solving and seeking professional help when needed (Thompson et al., 2017). Emotional support can help patients develop a sense of self-efficacy, enabling them to better manage their condition and adhere to treatment regimens (Bossola et al., 2011).

In the context of chronic illnesses, access to accurate and reliable information is crucial for patients to make informed decisions about their health and treatment options. Informational support from healthcare professionals, support groups, and knowledgeable peers can empower patients with CKD to actively participate in their care and treatment plans (Purnell et al., 2019).

By understanding their condition and available resources, patients can play a more active role in managing their health, leading to improved treatment adherence and better health outcomes (Jhamb et al., 2013). Informational support equips patients with the knowledge and skills necessary to navigate the complexities of CKD and fosters a sense of control and mastery over their health journey.

Instrumental support refers to practical assistance provided by social networks to meet the daily needs of patients. For individuals with CKD, who may experience physical limitations and lifestyle adjustments, instrumental support can be invaluable in maintaining their independence and overall well-being (Bossola et al., 2011).

Tasks such as transportation to medical appointments, help with household chores, and assistance with medication management are examples of instrumental support that can reduce the burden on patients and contribute to a better quality of life (Chilcot et al., 2018). This type of support also allows patients to focus on managing their health effectively without the additional stress of handling daily life challenges alone.

The presence of a robust social support system has a direct impact on the mental health and emotional well-being of patients with chronic illnesses. Social support has been associated with reduced rates of anxiety and depression in CKD patients (Nanayakkara et al., 2018). The feeling of being cared for, understood, and connected to others fosters a sense of belonging and security, which acts as a buffer against emotional distress and loneliness (Cohen & Wills, 1985).

In contrast, a lack of social support or perceived social isolation can lead to adverse mental health outcomes and a diminished sense of overall well-being (Chilcot et al., 2018). Patients who feel socially isolated may experience a heightened sense of vulnerability and hopelessness, which can negatively impact their ability to cope with the challenges of CKD (Lauri, 2018).

Social support plays a crucial role in the lives of patients with chronic illnesses, particularly those with CKD. Emotional, informational, and instrumental support from family, friends, and social networks contribute to patients' coping strategies, emotional well-being, and overall quality of life. A supportive social network empowers patients, fosters resilience, and promotes active participation in managing their health.

Recognizing the significance of social support in CKD management can guide healthcare providers in implementing patient-centered care that acknowledges the broader psychosocial needs of patients. By fostering a strong social support system and facilitating access to informational resources, healthcare professionals can enhance the overall well-being and health outcomes of individuals living with CKD.

The interplay between spiritual intelligence (SI) and social support holds significant potential in improving the quality of life (QoL) of patients with Chronic Kidney Disease (CKD). Both spiritual intelligence and social support are essential components in the lives of CKD patients, influencing their coping mechanisms, emotional well-being, and overall QoL.

### **1.1.8 Spiritual Intelligence and Social Support as Coping Resources**

Both spiritual intelligence and social support serve as valuable coping resources for CKD patients. Spiritual intelligence enables individuals to find meaning and purpose amidst health challenges, offering a sense of hope, acceptance, and transcendence (Emmons, 2000). Social support provides patients with emotional understanding, empathy, and practical assistance in navigating the complexities of their condition (Cohen & Wills, 1985).

Together, spiritual intelligence and social support create a comprehensive support system that addresses patients' multifaceted needs. Patients with high spiritual intelligence are more likely to seek and receive social support, fostering a strong and nurturing social network (Schutte & Malouff, 2002). Conversely, a supportive social network can help reinforce and strengthen patients' spiritual beliefs, further enhancing their coping mechanisms and resilience (Hill & Pargament, 2003).

Spiritual intelligence plays a crucial role in promoting a sense of connectedness, not only with oneself but also with others and the universe. This sense of connectedness aligns with the fundamental aspects of social support, as it fosters a sense of belonging and interdependence with the larger social context (Emmons, 2000). Patients with higher spiritual intelligence may feel a deeper sense of connectedness to their social network,

leading to increased trust, communication, and emotional intimacy with their support system.

Moreover, spiritual intelligence may encourage patients to seek social support more proactively, recognizing the importance of interconnectedness and shared experiences (Schutte & Malouff, 2002). Patients with CKD may engage in spiritual practices, such as prayer or meditation, as a means of seeking guidance and support from a higher power, reinforcing their sense of interconnectedness with others who share similar spiritual beliefs.

Social support can also act as a facilitator of spiritual growth and development in CKD patients. Supportive social networks can provide a safe and non-judgmental space for patients to explore and express their spiritual beliefs, values, and struggles (Hill & Pargament, 2003). Through shared experiences and open dialogue, patients may deepen their spiritual understanding, finding solace in the spiritual aspects of their health journey.

Furthermore, social support can connect patients to spiritual communities, support groups, or religious institutions, providing opportunities for communal worship, spiritual practices, and guidance from spiritual leaders (Thapa et al., 2019). These connections can enhance patients' spiritual experiences and contribute to a sense of purpose and belonging within a larger spiritual framework.

The joint contribution of spiritual intelligence and social support to improved QoL in CKD patients is multifaceted. Patients with strong spiritual intelligence are better equipped to seek and receive social support, leading to increased emotional well-being, reduced stress, and improved coping mechanisms (Emmons, 2000; Cohen & Wills, 1985). Conversely, a supportive social network can reinforce patients' spiritual beliefs, foster a sense of connectedness, and provide a nurturing environment for spiritual growth (Schutte & Malouff, 2002; Hill & Pargament, 2003).

Together, these factors contribute to an enhanced QoL for CKD patients, enabling them to navigate their health journey with a greater sense of purpose, resilience, and social connectedness. A comprehensive approach that recognizes and nurtures both spiritual intelligence and social support can lead to more holistic and patient-centered care, ultimately improving the well-being and health outcomes of individuals living with CKD. The interplay between spiritual intelligence and social support holds significant potential in improving the QoL of CKD patients.

Spiritual intelligence provides patients with a sense of purpose and transcendence, while social support offers emotional understanding, practical assistance, and a sense of connectedness to others. Together, these resources create a comprehensive support system that enhances patients' coping mechanisms, emotional well-being, and overall QoL. By acknowledging and fostering the joint contribution of spiritual intelligence and social support, healthcare providers can implement patient-centered care that addresses the multifaceted needs of individuals living with CKD, ultimately leading to improved health outcomes and enhanced QoL.

## **1.2 Rationale of the Study**

Chronic Kidney Disease (CKD) is a significant public health issue, affecting millions of people worldwide. It is characterized by the progressive decline of kidney function, leading to complications such as anaemia, bone disease, and cardiovascular problems. CKD poses significant challenges to patients, impacting their physical, emotional, and social well-being. As healthcare professionals strive to improve the management and quality of life (QoL) of CKD patients, understanding the factors that influence their overall well-being becomes essential.

While the clinical aspects of CKD management are crucial, acknowledging the importance of QoL in guiding treatment decisions and patient-centered care is gaining recognition. QoL encompasses the physical, emotional, and social dimensions of patients' lives, reflecting their subjective well-being and ability to maintain functional, social, and psychological well-being (Weisbord et al., 2005). CKD patients face numerous challenges related to symptom burden, reduced physical functioning, emotional distress, and social isolation. Addressing these aspects is vital to enhance the overall well-being and treatment outcomes of patients.

Within the context of CKD, spiritual intelligence can play a crucial role in how patients cope with the physical and emotional challenges of their health condition. Patients with higher SI may find a sense of hope and acceptance amidst health uncertainties, drawing strength from their spiritual beliefs and practices (Nanayakkara et al., 2018). Understanding the interplay between SI, coping mechanisms, and QoL among CKD patients is of interest in exploring holistic approaches to patient care.

Social support is another essential factor influencing the lives of CKD patients. Social support encompasses emotional, informational, and instrumental assistance from family, friends, and social networks. CKD patients often face lifestyle adjustments, treatment complexities, and emotional distress, making social support invaluable in their journey. Social support acts as a buffer against emotional distress, promoting resilience and overall well-being among CKD patients.

The potential interplay between SI and social support is an intriguing area of investigation. SI may influence patients' ability to seek and receive social support, as individuals with higher SI may be more inclined to engage in meaningful social connections (Schutte & Malouff, 2002). Patients with a strong sense of purpose and connectedness may be more open to sharing their experiences, seeking emotional understanding, and participating in support groups (Hill & Pargament, 2003).

Conversely, social support may reinforce and enhance patients' spiritual beliefs, as support from a caring social network can foster a sense of belonging and connectedness to a larger spiritual framework (Cohen & Wills, 1985). Spiritual practices and rituals may become a shared experience within supportive social networks, further strengthening patients' sense of spirituality and QoL.

While numerous studies have explored the psychosocial aspects of CKD, including social support and QoL, the concept of spiritual intelligence remains relatively underexplored in this context. Existing research on spiritual intelligence has primarily focused on mental health, coping with chronic illnesses, and overall well-being in diverse populations (Emmons, 2000; Hill & Pargament, 2003). However, only a limited number of studies have specifically investigated the role of spiritual intelligence in the lives of CKD patients.

As a result, there is a notable knowledge gap regarding the potential influence of spiritual intelligence on coping mechanisms, emotional well-being, and QoL among individuals living with CKD. Further research is needed to explore how spiritual intelligence interacts with the challenges and demands of CKD, shedding light on its potential role in enhancing patients' QoL and coping strategies.

The interplay between spiritual intelligence and social support represents an intriguing area for investigation, particularly in the context of CKD. While both factors have been individually associated with improved QoL and well-being in various



populations, their joint contribution to patients' lives remains poorly understood. The literature lacks studies that comprehensively explore how spiritual intelligence and social support interact and influence each other in the lives of CKD patients.

Understanding the potential interplay between these factors is essential as it may provide insights into how patients' spiritual beliefs and practices can be reinforced and supported through social connections. Additionally, it may offer valuable information on how social support networks can foster patients' spiritual growth, enhancing their coping mechanisms and overall QoL.

The majority of research on spiritual intelligence and social support has been conducted in Western contexts and predominantly among Christian populations. However, spiritual beliefs and practices vary significantly across cultures and religions (Emmons, 2000; Hill & Pargament, 2003). Therefore, it is crucial to acknowledge the influence of cultural and religious diversity on the relationship between spiritual intelligence, social support, and QoL among CKD patients.

The literature lacks in-depth exploration of how cultural and religious backgrounds may shape patients' spiritual beliefs, their access to social support networks, and their utilization of support resources. A more culturally sensitive approach to understanding the interplay between spiritual intelligence, social support, and QoL is essential to develop tailored interventions that cater to the diverse needs of CKD patients from various cultural and religious backgrounds.

The majority of existing research in this field is cross-sectional, limiting the ability to establish causality or examine changes over time. Longitudinal studies that follow CKD patients over an extended period can offer valuable insights into the dynamic relationships between spiritual intelligence, social support, and QoL. Such studies would allow researchers to investigate how changes in spiritual beliefs, social support structures, or QoL may impact one another over time.

By conducting longitudinal research, healthcare professionals can better understand the temporal aspects of the relationships between these variables and inform the development of interventions to improve patients' well-being and coping mechanisms throughout the trajectory of CKD.

Although social support has been acknowledged as an important factor in the lives of CKD patients, limited research has explored its role in enhancing the influence of spiritual intelligence. How social support systems facilitate and reinforce patients' spiritual beliefs and practices, and how these interactions may contribute to improved QoL, remains relatively unexplored.

Investigating the mechanisms through which social support can augment the impact of spiritual intelligence is essential to develop comprehensive care approaches that leverage both psychosocial factors to enhance patients' coping mechanisms and overall well-being. Understanding how social support can be harnessed to nurture patients' spiritual growth and well-being may lead to innovative interventions and support services for CKD patients. In conclusion, the existing literature reveals several research gaps concerning the relationship between spiritual intelligence, social support, and quality of life in the context of Chronic Kidney Disease (CKD). The limited exploration of spiritual intelligence in CKD, insufficient understanding of the interplay between spiritual intelligence and social support, and the need for more culturally sensitive and longitudinal studies represent significant knowledge gaps.

By addressing these gaps, healthcare professionals can gain a more comprehensive understanding of the psychosocial aspects influencing CKD patients' well-being. Developing interventions that recognize and leverage the potential interplay between spiritual intelligence, social support, and QoL may contribute to more effective patient-centered care, ultimately improving the overall well-being and outcomes of individuals living with CKD.

### **1.3 Problem Statement**

Chronic Kidney Disease (CKD) is a significant global health concern, affecting millions of individuals and posing substantial challenges to patients' physical, emotional, and social well-being. The clinical management of CKD is vital in slowing disease progression and managing complications, but it is equally essential to address the psychosocial dimensions of patients' lives. Two key dimensions that have emerged as potentially influential factors in the context of CKD are spiritual intelligence and social

support. Spiritual intelligence refers to the ability to seek meaning, purpose, and transcendence in life, while social support encompasses the assistance, understanding, and companionship provided by others. Understanding the interplay between spiritual intelligence, social support, and quality of life (QoL) among patients diagnosed with CKD holds significant importance in optimizing their overall well-being and coping mechanisms.

Chronic Kidney Disease poses a substantial burden on affected individuals and healthcare systems worldwide. It is characterized by the gradual loss of kidney function over time, leading to complications such as anemia, bone disease, cardiovascular problems, and diminished overall health-related QoL (Jha et al., 2013). The impact of CKD is not limited to physical health but also extends to psychosocial well-being, mental health, and overall QoL.

Spiritual intelligence, although relatively understudied in the context of CKD, has been recognized as an essential dimension of well-being and coping in the face of chronic illnesses (Emmons, 2000). It involves the capacity to connect with one's inner self, seek meaning, purpose, and transcendence, and cope with life's challenges through spiritual beliefs and practices. Previous research has shown that spiritual intelligence can be a source of comfort, hope, and resilience in the face of health-related adversities, contributing to enhanced emotional well-being and QoL (Hill & Pargament, 2003).

Social support, on the other hand, has been extensively studied and acknowledged as a critical factor in patients' ability to cope with chronic illnesses and maintain positive QoL (Cohen & Wills, 1985). The presence of supportive relationships, including family, friends, and healthcare professionals, can buffer against the negative effects of stress and foster a sense of belonging and emotional well-being.

Despite the extensive research on CKD, there is a noticeable research gap concerning the interplay between spiritual intelligence, social support, and QoL in the context of this chronic condition. While various studies have explored the psychosocial aspects of CKD, including social support and QoL, the concept of spiritual intelligence remains relatively underexplored in this context (Emmons, 2000). Limited studies have specifically investigated the role of spiritual intelligence in the lives of CKD patients and its potential influence on coping mechanisms, emotional well-being, and QoL.

Furthermore, while both spiritual intelligence and social support have been individually associated with improved QoL and well-being in various populations, their joint contribution to patients' lives remains poorly understood (Cohen & Wills, 1985). Existing research often focuses on either spiritual intelligence or social support in isolation, without exploring how these factors may interact and influence each other in the lives of CKD patients.

Understanding the interplay between spiritual intelligence, social support, and QoL in the context of CKD holds significant importance for patient care and well-being. Spirituality is a deeply personal and meaningful aspect of individuals' lives, and exploring how spiritual intelligence influences patients' coping mechanisms and emotional well-being can provide valuable insights into fostering resilience and enhancing QoL.

Additionally, social support has been widely recognized as a crucial factor in patients' ability to cope with chronic illnesses and maintain a positive QoL (Nanayakkara et al., 2018). Understanding the relationship between social support and spiritual intelligence can reveal potential mechanisms through which social networks can reinforce and support patients' spiritual beliefs, ultimately contributing to improved emotional well-being and QoL.

The problem statement highlights the need to investigate the interplay between spiritual intelligence, social support, and quality of life among patients diagnosed with Chronic Kidney Disease. By addressing this research gap, the study seeks to contribute valuable insights to healthcare professionals, fostering a more holistic understanding of the psychosocial dimensions that influence CKD patients' overall well-being. The findings may inform the development of patient-centered interventions that address patients' spiritual and social needs, ultimately improving their coping mechanisms, emotional well-being, and overall quality of life throughout the trajectory of CKD.

#### **1.4 Research Questions**

1. What is the relationship between spiritual intelligence, social support and quality of life among patients diagnosed with chronic kidney diseases?
2. How can social support affect the quality of life for those with renal disease?

3. What is the impact of demographic variables like gender, age, among patient diagnosed with chronic kidney diseases in relation to study constructs?

### **1.5 Research Objectives**

1. To explore the relationship between spiritual intelligence, social support and quality of life among patients diagnosed with chronic kidney disease.
2. To study the impact of spiritual intelligence on the quality of life.
3. To assess the influence of demographic variables such as gender and age on the study constructs in patients diagnosed with chronic kidney disease.
4. To study the mean difference between men and women in terms of spiritual intelligence, social support and quality of life.
5. To investigate the moderating role social support between spiritual intelligence and quality of life among patients with chronic kidney disease.

### **1.6 Hypotheses**

The following hypotheses are formulated in accordance to the objectives of the study:

1. There will be a significant correlation among Spiritual intelligence, Social support and quality of life among patients with CKD.
2. Spiritual intelligence will be positively related with quality of life among chronic kidney disease patients.
3. There will be significant gender difference between social support, quality of life and spiritual intelligence among chronic kidney disease patients.
4. There will be moderating role of social support between quality of life and spiritual intelligence among chronic kidney disease patients.

### **1.7 Significance of the Study**

The significance of this study lies in its potential to enhance holistic patient care for individuals diagnosed with Chronic Kidney Disease (CKD). While medical

interventions and clinical management are vital for CKD patients, addressing the psychosocial dimensions of their lives is equally crucial. By investigating the interplay between spiritual intelligence, social support, and quality of life, healthcare professionals can gain deeper insights into the factors that influence patients' coping mechanisms, emotional well-being, and overall QoL. This holistic understanding can lead to the development of more comprehensive and patient-centered approaches to care, taking into account the multifaceted needs of CKD patients and promoting their overall well-being.

Chronic illnesses like CKD can be emotionally challenging for patients, leading to feelings of uncertainty, anxiety, and loss of control. Spiritual intelligence has been recognized as a potential coping resource, providing individuals with a sense of purpose, hope, and inner strength during difficult times (Emmons, 2000). By examining the influence of spiritual intelligence on CKD patients' coping mechanisms and emotional well-being, this study can shed light on the potential benefits of integrating spiritual support into healthcare interventions. Healthcare providers can then develop targeted interventions that empower patients to draw upon their spiritual beliefs and practices to navigate the emotional challenges associated with CKD effectively.

Social support plays a crucial role in patients' lives, particularly in the context of chronic illnesses. The presence of supportive relationships can significantly impact patients' ability to cope with the challenges of CKD and maintain a positive QoL (Cohen & Wills, 1985). By exploring the relationship between social support and spiritual intelligence, this study can reveal potential mechanisms through which social networks can reinforce and support patients' spiritual beliefs. Healthcare professionals can leverage this understanding to strengthen social support networks for CKD patients, fostering a sense of belonging and connectedness that contributes to improved emotional well-being and QoL.

The significance of this study extends to its potential to inform culturally sensitive and tailored interventions for CKD patients from diverse cultural and religious backgrounds. Spiritual beliefs and practices vary significantly across cultures and religions, and understanding how these factors interact with social support can help healthcare providers develop interventions that respect and accommodate patients' individual belief systems. By acknowledging and integrating the cultural and religious diversity of CKD patients, healthcare professionals can create a supportive and inclusive

care environment that addresses their unique psychosocial needs, ultimately enhancing their QoL and treatment outcomes.

This study contributes to the growing body of research on spiritual intelligence, particularly in the context of chronic illnesses such as CKD. While the concept of spiritual intelligence has gained attention in various fields, its application and significance in the context of CKD are relatively underexplored. By conducting comprehensive research on the interplay between spiritual intelligence, social support, and QoL, this study can add depth and nuance to the existing knowledge base. The findings can expand our understanding of the potential influence of spiritual intelligence on patients' well-being and contribute to discussions on integrating spiritual dimensions into healthcare practices. The significance of exploring the interplay between spiritual intelligence, social support, and quality of life among patients diagnosed with Chronic Kidney Disease lies in its potential to enhance holistic patient care, improve coping mechanisms and emotional well-being, strengthen social support networks, develop culturally sensitive interventions, and build a knowledge base in spiritual intelligence research. By understanding the psychosocial dimensions that influence CKD patients' overall well-being, healthcare professionals can develop more comprehensive and patient-centered approaches to care, ultimately improving patients' coping mechanisms, emotional well-being, and overall quality of life.

## CHAPTER 2

### LITERATURE REVIEW

The quality of life (QoL) of an individual is influenced by a myriad of factors, including their spiritual intelligence and the social support they receive. Spiritual intelligence encompasses critical existential thinking, personal meaning production, transcendental consciousness, and consciousness state expansion. Social support, on the other hand, encompasses family, friends, and significant others who provide emotional, instrumental, and informational assistance. This literature review explores the intricate relationship between spiritual intelligence, social support, and quality of life, with a focus on their interplay and potential impact on various dimensions of an individual's well-being.

Understanding the interplay between spiritual intelligence, social support, and quality of life is crucial for healthcare professionals and caregivers involved in the care and management of CKD patients. By synthesizing existing research, the literature review aims to contribute valuable insights into the psychosocial dimensions that influence CKD patients' overall well-being. The findings may inform the development of patient-centered interventions that address patients' spiritual and social needs, ultimately improving their coping mechanisms, emotional well-being, and overall quality of life throughout the trajectory of CKD.

#### 2.1 Spiritual intelligence and quality of life

Spiritual intelligence is an emerging concept that has garnered attention in health research, particularly in the context of chronic illnesses. The Latin term *spiritus*, from which we get the English word "spiritual," meaning "that gives life or vitality to a system



(Srivastava, 2016). According to researcher, spiritual intelligence is "the human ability to pose ultimate questions about the meaning of life, and to concurrently perceive the seamless connection between each of us and the world in which we live" (Wolman, 2001). It involves capacities such as seeking deeper meaning, introspection, and forming connections with others and the environment on a spiritual level (King, 2008). A spiritually intelligent person possesses both a spiritual and an intellectual dimension.

Scholars have proposed multiple dimensions of spiritual intelligence, including the capacity to think critically about one's existence, the ability to find meaning of one's own life, the capacity to have awareness beyond oneself a sense of interconnectedness, and expansion of an individual's awareness beyond ordinary states of consciousness (Emmons, 2000; King & DeCicco, 2009). These dimensions suggest that individuals with higher spiritual intelligence levels might exhibit greater emotional resilience, empathy, and a more profound sense of purpose (King, 2008; King & DeCicco, 2009).

Researchers have defined first domain of spiritual intelligence the critical existential thinking as a facet of intellectual engagement that goes beyond surface-level considerations to explore the deeper questions of human existence (Cramer, 2011; Wong, 2011). Studies suggest that critical existential thinking may contribute to an individual's ability to cope with stress and adversity. Such individuals may adopt more adaptive coping strategies, seeking solace in their reflections on life's deeper significance (Reker & Wong, 1988; Wong, 2011).

Personal meaning production in spiritual intelligence domains, is a cognitive process that involves the creation and integration of meaningful narratives and interpretations in an individual's life (Steger, 2012; Baumeister, 1991). Existing research delves into the relationship between personal meaning production and quality of life. Individuals who engage in higher levels of personal meaning production tend to report greater life satisfaction and enhanced psychological well-being (Steger, 2009; Debats, 1999). These individuals are often better equipped to navigate adversity and find meaning in difficult circumstances (Steger, 2012; Park, 2010).

Transcendental consciousness another domain of spiritual intelligence refers to a heightened state of awareness characterized by a sense of interconnectedness, inner calmness, and a deep connection to the universe (Travis & Pearson, 2000; Alexander et al., 1991). Research exploring the relationship between transcendental consciousness and

quality of life indicates that individuals who regularly experience these transcendent states tend to report greater overall life satisfaction and psychological well-being (Alexander et al., 1991; Travis & Pearson, 2000). This suggests that the ability to tap into transcendental consciousness may play a role in enhancing an individual's emotional state and overall quality of life.

Consciousness state expansion refers to the expansion of an individual's awareness beyond ordinary states of consciousness, often involving experiences of altered states, higher awareness, and greater interconnectedness (Gallagher, 2008; Tart, 1975).

Existing research delves into the relationship between consciousness state expansion and quality of life, indicating that individuals who frequently engage in these expanded states tend to report greater overall life satisfaction and psychological well-being (Tart, 1975; Varela et al., 1991). This suggests that the capacity to access and experience these expanded states might play a role in enhancing an individual's emotional state and overall quality of life.

Furthermore, the literature suggests that practices aimed at inducing consciousness state expansion, such as meditation and certain contemplative practices, can have positive effects on stress reduction and coping mechanisms (Shonin et al., 2014; Gallagher, 2008). Individuals who cultivate these practices often report improved psychological resilience, reduced stress, and enhanced overall well-being (Shonin et al., 2014; Gallagher, 2008).

In the context of chronic illnesses like CKD, spiritual intelligence can serve as a coping mechanism that helps patients navigate the complex emotions and uncertainties associated with their condition. A study by Zamani et al. (2015) investigated the relationship between spiritual intelligence, happiness, and QoL in patients with CKD. The findings suggested that spiritual intelligence was positively correlated with both happiness and QoL, highlighting its potential role in promoting well-being among CKD patients.

Individuals with elevated spiritual intelligence levels often report lower psychological distress, improved coping strategies, and enhanced overall life satisfaction (Emmons, 2000; Sisk & Torrance, 2012). They are more likely to adopt adaptive coping

mechanisms, such as searching for meaning during challenges, practicing mindfulness, and cultivating a sense of interconnectedness (Sisk & Torrance, 2012; Fisher, 2010).

Measurement of spiritual intelligence often involves self-report questionnaires that assess an individual's capacity to seek meaning, transcendence, and inner peace, as well as their ability to integrate spiritual beliefs and principles into their daily lives. The Spiritual Intelligence Self-Report Inventory (SISRI-24) and the Self-Report Measure of Spiritual Intelligence (SMSIQ) are among the widely used instruments to assess spiritual intelligence (Amram et al., 2019).

Studies exploring the relationship between spiritual intelligence and QoL in chronic illnesses have shown promising findings. Higher levels of spiritual intelligence have been associated with better QoL outcomes, including enhanced psychological well-being, increased life satisfaction, and improved coping mechanisms in the face of illness-related challenges (Emmons, 2000).

Spiritual intelligence has been found to positively influence various aspects of QoL, such as emotional well-being, social functioning, and physical health. Individuals with higher spiritual intelligence scores may experience less distress, greater acceptance of their illness, and a sense of purpose and meaning in life, leading to better overall QoL (Koenig, 2012).

Another study by Seyedfatemi et al. (2016) examined the relationship between spiritual intelligence, self-efficacy, and QoL in hemodialysis patients with CKD. The results revealed that higher levels of spiritual intelligence were associated with greater self-efficacy and better QoL, indicating the potential benefits of addressing spiritual dimensions in the care of CKD patients. Numerous studies have examined the relationship between spiritual intelligence and quality of life, with many indicating a positive correlation between the two (Morrison & O'Connor, 2005; Fisher, 2010).

The expanding body of literature on spiritual intelligence and quality of life emphasizes the potential benefits of integrating spiritual and existential aspects into well-being interventions (Walsh, 2011). Incorporating practices such as mindfulness, self-reflection, and spiritual engagement has shown promise in enhancing psychological outcomes (Zohar & Marshall, 2000; Fisher, 2010).

In conclusion, existing literature suggests that spiritual intelligence plays a substantial role in shaping individuals' quality of life by fostering emotional resilience, providing purpose, and facilitating adaptive coping mechanisms. While a positive correlation between spiritual intelligence and quality of life is evident, further research is necessary to comprehensively understand the underlying mechanisms and to consider the cultural nuances that modulate this relationship (King, 2008; Sisk & Torrance, 2012).

## **2.2 Social support and quality of life**

The term "social support" was coined by the researchers at the University of Michigan and refers to the web of people a person has access to in order to meet their informational and emotional requirements.

Social support is defined as the assistance, emotional comfort, and resources that individuals receive from their social networks, including friends, family, and community (Cohen & Wills, 1985; House et al., 1988). The presence of social support can serve as a buffer against stress and adversity, contributing to improved psychosocial well-being and enhanced coping mechanisms (Cohen & Wills, 1985).

Social support mitigates the deleterious effects of an abnormal state of stress, according to the Stress Buffering Model. Social support is widely acknowledged as a proactive factor in reducing the negative effects of strain. Social support has been shown to have a favourable effect on parenting in numerous studies. Parents' perceptions of their own and others' support, as well as their own observations of the effects of stress on their children, may be more important than any actual asset estimates (Baruch-Feldman, Brondolo, Ben-Dayana, & Schwartz, 2002).

Marriage and family ties, friendships, and other social connections, as well as membership in professional and community groups, all contribute to this web of support. There are three main categories of social support, as defined by (Jacobson, 1986).

Family support is a dimension of social support that involves the assistance, emotional comfort, and practical help provided by family members, such as parents, spouses, and children. Family support plays a vital role in individuals' lives, as family

members often form the primary support network and share strong emotional bonds (Barnett et al., 2017).

Family support is linked to enhanced coping mechanisms and emotional resilience (Cutrona & Russell, 1990; Bowlby, 1982). Family members often serve as a source of emotional validation, practical assistance, and guidance, aiding individuals in navigating life's challenges (Barrera, 1986; Cutrona & Russell, 1990).

Friends support refers to the assistance, companionship, and empathy provided by friends and peers. Friends support can offer a sense of belonging and camaraderie, as individuals often share common interests and experiences with their friends (Cutrona & Suhr, 1992). Research exploring the relationship between friend support and quality of life consistently indicates a positive correlation between the two (Thoits, 2011; Wethington & Kessler, 1986).

Significant other support refers to the assistance and emotional connection provided by romantic partners or close companions. Significant others play a unique role in individuals' lives, as they provide emotional intimacy and support through close relationships (Acitelli, 1993). Research examining the relationship between significant other support and quality of life consistently suggests a positive correlation between the two (Cutrona, 1996; Acitelli, 1993). Individuals who perceive strong support from their partners tend to report higher life satisfaction, improved mental health, and enhanced relationship quality (Cutrona, 1996; Acitelli, 1993).

Measuring social support and its dimensions often involves self-report questionnaires that assess individuals' perceptions of support received from various sources, such as family, friends, and significant others. The Multidimensional Scale of Perceived Social Support (MSPSS) is the commonly used instrument to assess different dimensions of social support (Zimet et al., 1988).

Research on social support has consistently demonstrated its influence on various health outcomes. Higher levels of social support have been associated with reduced psychological distress, lower levels of anxiety and depression, improved treatment adherence, and enhanced overall Quality of Life (QoL) (Cohen & Syme, 1985).

A study on haemodialysis patients showed that non-family networks, such as friends, decrease over time. Having a larger social network was associated with higher

participation-seeking preference and lower levels of anxiety. In addition, closer and more satisfying relationships or high-quality social relationships were correlated to better psychological well-being (Neumann, Lamprecht, Robinski, Mau, & Girndt, 2018).

Another study by Alnazari et al. (2020) investigated the relationship between social support and QoL in hemodialysis patients with CKD. The findings revealed that higher levels of social support were associated with improved QoL, particularly in the domains of emotional well-being and social relationships.

Another study by Pei et al. (2017) examined the role of social support in the mental health and QoL of patients with advanced CKD. The results indicated that higher levels of perceived social support were linked to reduced anxiety and depression symptoms and enhanced overall QoL, highlighting the significance of social support in managing psychosocial well-being in CKD patients.

The findings from studies exploring social support in CKD patients underscore its significance in promoting patients' psychosocial well-being and QoL. By providing emotional support, practical assistance, and a sense of belonging, social support can help CKD patients navigate the challenges of their condition, cope with treatment-related stressors, and improve their overall QoL (Merkus et al., 2018).

Another research by Singstad et al. (2021) also found positive association between social support and quality of life, the researchers found that self-esteem, emotional well-being and QoL was favourably and indirectly linked to social support offered. This implies that maintaining social support to improve QoL is required to be taken into consideration by social health workers and other care givers so that a person could improve mental and physical health.

In the context of CKD care, healthcare providers can play a vital role in facilitating social support interventions. Encouraging patient engagement in support groups, connecting patients with resources for counseling and psychoeducation, and fostering communication between patients and their support networks can enhance the availability and effectiveness of social support (De Pasquale et al., 2015).

Social support is a crucial determinant of QoL in individuals with Chronic Kidney Disease (CKD). The availability of emotional, instrumental, and informational support from family, friends, and significant others can significantly influence patients'

well-being and coping mechanisms. Existing studies underscore the positive impact of social support on the psychosocial well-being of CKD patients and their overall QoL. By recognizing the importance of social support, healthcare providers can develop patient-centered interventions that enhance patients' social networks, ultimately contributing to improved QoL and treatment outcomes for CKD patients.

### **23 The interplay between spiritual intelligence and social support**

The interplay between spiritual intelligence, social support, and quality of life has gained attention in the literature as researchers seek to understand the complex interactions that contribute to individuals' overall well-being (Fisher, 2010; Cohen & Wills, 1985). The interplay between spiritual intelligence and social support holds significant potential in shaping the psychosocial well-being and Quality of Life (QoL) of individuals facing chronic illnesses such as Chronic Kidney Disease (CKD). Research exploring the interplay between spiritual intelligence, social support, and quality of life suggests complex relationships that contribute to overall well-being (Fisher, 2010; Cohen & Wills, 1985).

Several theoretical frameworks propose mechanisms through which spiritual intelligence and social support can interact and jointly influence individuals' well-being. One such framework is the Stress and Coping Theory, which posits that individuals draw on spiritual and social resources to cope with stressors, including chronic illness (Taylor, 2011). Spiritual intelligence may provide individuals with a sense of meaning and purpose, while social support can offer emotional and practical assistance, both contributing to improved coping and adaptive outcomes.

The Social Identity Theory also highlights the significance of social connections and group identity in shaping individuals' self-concept and well-being (Tajfel & Turner, 1986). In the context of spiritual intelligence, individuals may find support and belonging within religious or spiritual communities, reinforcing the importance of both spiritual and social dimensions in promoting well-being.

Research in various populations has demonstrated the joint influence of spiritual intelligence and social support on individuals' well-being. Studies in cancer patients have shown that higher levels of spiritual intelligence are associated with greater perceived social support, leading to enhanced coping abilities and improved QoL (Badr et al., 2017).

In other chronic illness populations, such as individuals with heart disease or HIV/AIDS, the interplay between spiritual intelligence and social support has been linked to better mental health outcomes, increased treatment adherence, and higher levels of life satisfaction (Hebert et al., 2019; Holt et al., 2018).

While research specifically investigating the interplay between spiritual intelligence and social support in CKD patients is limited, some studies have explored related dimensions. For instance, a study by Rahmani et al. (2019) investigated the relationship between spiritual intelligence, social support, and QoL in patients with end-stage renal disease. The findings suggested that spiritual intelligence and social support were positively correlated with QoL, indicating potential synergies between these factors in promoting well-being.

Another study by Bagheri-Nesami et al. (2018) examined the impact of a spiritual support program on QoL and social support in haemodialysis patients with CKD. The results revealed that participation in the program led to significant improvements in spiritual well-being, social support, and overall QoL, supporting the potential benefits of addressing spiritual and social dimensions simultaneously.

The synthesis of findings from previous research and specific studies in CKD patients suggests that spiritual intelligence and social support may mutually reinforce each other in influencing patients' well-being. Spiritual intelligence may facilitate individuals' access to and utilization of social support resources, fostering a sense of belonging and emotional comfort (Hebert et al., 2019).

Research has demonstrated the significant influence of QoL on various outcomes in CKD patients. Higher levels of QoL have been associated with improved treatment adherence, reduced hospitalizations, and enhanced overall well-being (Mapes et al., 2010). Addressing the dimensions of QoL can contribute to better health-related decisions and more positive treatment experiences for CKD patients (Karamanidou et al., 2021).



Quality of life that is affected by a person's health status is known as health-related quality of life (HRQoL) and may provide important data about a patient's coping with chronic kidney disease (CKD) (Pagels, Söderkvist, Medin, Hylander, & Heiwe, 2012). Patients with CKD often experience a decline in HRQoL (Poppe et al., 2013). At an early stage, CKD already hampered HRQoL. As previously mentioned, Mapes et al. (2003) found that a lower HRQoL predicts an increased risk of death and hospitalization due to ESRD. In the context of CKD care, addressing the dimensions of QoL is essential for promoting patients' holistic well-being and optimizing treatment outcomes. Healthcare providers can implement interventions to manage symptoms, enhance psychological support, foster social connectedness, and address environmental factors to improve patients' overall QoL and enhance their resilience in the face of illness (Painter et al., 2015).

Demographic variables, such as gender and age, education, marital status, duration of disease and treatment can play a significant role in influencing the outcomes and psychosocial dimensions of Chronic Kidney Disease (CKD) patients. This section of the literature review explores the impact of demographic factors on CKD outcomes, including their relevance to psychosocial dimensions. It delves into studies investigating the relationship between demographic variables and various psychosocial aspects in CKD patients, and discusses the findings and implications for patient-centered care.

Gender differences may influence CKD prevalence, progression, and treatment outcomes. Some studies have suggested that CKD is more prevalent in men than women, while others have found no significant gender disparities (Meguid El Nahas & Bello, 2005). Gender-related factors, such as hormonal differences and healthcare-seeking behaviors, may contribute to varying CKD outcomes between males and females.

Age is a critical determinant of CKD, as the prevalence and severity of the disease increase with age (Garcia-Garcia & Jha, 2016). Older CKD patients may face unique challenges due to comorbidities, reduced physiological reserve, and treatment complexities. Age-related factors may impact patients' ability to cope with the psychosocial aspects of CKD.

Gender differences can influence how CKD patients perceive and cope with their illness. Some studies have reported that female CKD patients may experience more emotional distress and depressive symptoms than males (Hedayati et al., 2018).

Additionally, gender norms and cultural expectations may affect how patients seek social support or express their emotional needs, leading to variations in psychosocial outcomes.

Education and marital status can also influence the psychological well-being of patients with CKD, as with the support of significant other patient might feel better and it help to compete with the disease in a more effective manner.

Age-related factors can significantly impact the psychosocial well-being of CKD patients. Older patients may experience higher levels of emotional burden and social isolation due to factors such as retirement, reduced social networks, and bereavement (Kutner et al., 2018). On the other hand, younger patients may struggle with different psychosocial challenges, such as concerns about family planning and career disruptions.

Recognizing the influence of demographic variables on CKD outcomes and psychosocial dimensions is crucial for providing patient-centered care. Healthcare providers should adopt personalized approaches that consider individual needs, preferences, and challenges based on gender, age, and other relevant factors (Thornton, 2016).

Understanding the impact of gender and age on psychosocial well-being can guide the development of targeted interventions to address emotional distress and social support needs. Healthcare teams can offer counseling services, support groups, and educational programs tailored to the specific needs of different patient groups (Martire & Schulz, 2007).

Recognizing gender and age disparities in CKD outcomes can inform efforts to reduce health inequities. Identifying and addressing potential barriers to care can improve access to early detection, prevention, and treatment services, particularly for vulnerable patient populations (Mendu et al., 2018).

Demographic variables, such as gender and age, can significantly influence CKD outcomes and psychosocial dimensions. Understanding the impact of these factors is essential for delivering patient-centered care and addressing the unique needs and challenges of CKD patients. Tailoring interventions to individual characteristics can improve psychosocial support, enhance treatment adherence, and ultimately contribute to better outcomes and quality of life for CKD patients.

## 2.4 Role of Social support

In this section, the aspect of social support is explored in the association between Spiritual Intelligence and QoL, mainly in the context of chronic kidney disease patients. Jaguaco et al. (2022) analysed the impact of social support along with self-efficacy on the QoL of students. Findings in this study showed that the social support variable influenced the QoL and both showed a significant association. The association was also positive where higher levels of Social support resulted in improved QoL in the students.

Furthermore, the study by Pasyar et al. (2020) analysed the predictive role of social support and spiritual intelligence in improving the health outcomes and well-being of Thalassemia patients. They stated that perceived social support and spiritual wellness predicted improved quality of life in the patients. Ikram et al. (2022) explored the role of social support as a moderating variable for death anxiety in the case of CKD patients. Although the study identified social support as a significant predictor i.e.  $p < 0.01$  enhancing the resilience in the CKD patients. Although the variable is identified as a moderator, the study does not involve the variables of spiritual intelligence or QoL.

Ratti et al. (2017) analysed the role of social support in improvements in the QoL of CKD patients. They compared the impact of high and low social support with the psychological well-being and QoL in the patients. They found that the presence or absence of social support in the patients' case was correlated with the QoL and improvements in health outcomes. The social support enhances the QOL in the CKD patients.

Hatami et al. (2019) evaluated the role of social support in the care of CKD patients receiving haemodialysis. A questionnaire was used to collect the data from 87 patients while the responses were analysed using correlation and regression analyses. They also identified a direct and significant relationship between social backing and QOL in the patients. However, the role of spiritual well-being was not identified in this study.

Kekrebesi (2021) identifies that CKD leads to End-stage kidney diseases in the patients. They aimed to explore the role of social support and emotive regulation on the QoL of CKD patients. The study was based on 144 CKD patients and questionnaires were used to analyse the role of social support on the HR-QoL of the CKD patients. The results

suggested that most of the patients received moderate to high levels of social support from their families and healthcare professionals. In addition to that, average to high intensities of HR-QoL were found in these patients. They further suggested that social support enhanced both physical and psychological aspects of Health-related- QoL in the patients. This supports that social support enhanced the ability of the patients to regulate their emotions and resulted in the improvement of QoL in the patients.

Furthermore, Osman et al. (2021) analysed the impact of spiritual intelligence on the QoL of haemodialysis patients in CKD. The findings showed that spiritual intelligence was an important factor contributing to improved health outcomes and QoL in CKD patients. They further identified that along with spiritual intelligence, social and emotional support and resilience to deal with the disease enhanced the QoL in the patients. This also suggested that the variables of social assistance moderates the variable of spiritual intelligence, improving the strength of its impact on the QoL in the patients suffering from CKD.

The study by Hassani et al. (2022) analysed the role and impact of social support variable, spiritual wellness and other variables in the Health-related QoL in CKD patients. The study was based on 260 CKD patients, and the data was collected using the HR-QoL questionnaire and other resilience scales. The finding of this study suggested that improvements in the HRQoL in CKD patients undergoing dialysis are significantly affected by Social support and spiritual well-being. Both variables significantly influenced the QoL in CKD patients. This also suggested that in the case of spiritual well-being strategies in CKD patients, the social support variables can intervene and enhance the impact of spiritual well-being on the QoL in CKD patients.

## **Theoretical framework**

### **2.5 Theory of spiritual intelligence**

The concept of spiritual intelligence (SI) is derived from the broader framework of emotional intelligence and multiple intelligence theories (Gardner, 1983; Salovey &

Mayer, 1990). Emmons (2000a) introduced a revolutionary framework for Spiritual Intelligence (SI) with five components and these elements reveal how spirituality can improve well-being and quality of life. SI is about using spiritual resources to overcome life's obstacles and spirituality can bring insights and solutions that intellectual techniques cannot (Skrzypińska, 2021). This ability helps people make more holistic and meaningful judgments, boosting their progress. Spiritual Intelligence's ability to reach higher realms of consciousness is exceptional and these states penetrate conventional awareness and connect with the spiritual realm (Srivastava, 2016). Meditation, introspection, and mindfulness can help people explore their inner selves, receive deep insights, and feel more connected to the universe.

Spiritual Intelligence helps people to bring the sacred into their daily lives and interactions and this helps people find significance and fulfillment in even the most ordinary tasks. This revolutionary attitude enriches and purposeful life, elevating commonplace experiences. Spiritual intelligence also includes the ability to transcend physical boundaries and well-developed SI can transcend material concerns and explore spiritual levels (Amram, 2007). This transcendent perspective offers a unique view of the world and oneself. Emmons' approach shows that Spiritual Intelligence greatly affects quality of life and integrating and cultivating these elements can boost well-being. Spiritual tools for problem-solving and heightened consciousness help relieve stress, anxiety, and sadness, encouraging emotional balance and resilience. Making conversations sacred helps people form deeper, more meaningful relationships. Seeing the sacred in ordinary life gives purpose and motivation. Emmons' five Spiritual Intelligence components provide a thorough framework for engaging with spiritual dimensions and improving quality of life (Khan & Kumar, 2019). Actively cultivating these components can increase well-being, relationships, purpose, and resilience in life's ever-changing circumstances.

David King and DeCicco (2009) develop a four-factor model of Spiritual Intelligence (SI) that illuminates its complexity. This model shows the complex interactions that shape spiritual growth and insight. Critical existential thought, personal meaning production, transcendental consciousness, and conscious state extension are King's four components. Critical existential thinking underpins this concept, encouraging people to contemplate existential questions and human nature. These essential questions help people comprehend their spirituality and place in life (King & DeCicco, 2009).

Second, personal meaning production emphasises the importance of making life events meaningful. This entails understanding and internalising events and circumstances to create narratives that help to grow and learn. Individuals connect with their spiritual selves and find purpose and direction by incorporating personal meaning into their lives (King, 2009). The third aspect of King's approach, transcendental consciousness, encourages people to investigate the spiritual realm. Meditation and contemplation can increase awareness beyond the senses, fostering harmony and interconnectedness (Satpathy & Samanta, 2022). The fourth element, conscious state expansion, describes expanding consciousness beyond its usual limitations. This entails practising altered states of awareness to access deeper aspects of the psyche and connect with spirituality. Spiritual Intelligence and social support are linked with each other and a helpful social network can foster community love, care, value, respect, and inclusiveness. Spiritual Intelligence grows in these emotional ties because people feel nourished and encouraged to investigate their spirituality (King, 2009). Social support reinforces the spiritual principle of interconnection by creating a sense of belonging and acceptance, which links our journeys to the well-being of the community.

The integration of spiritual intelligence into the study's theoretical background is essential due to its potential relevance in the context of chronic illnesses like CKD. Individuals with higher spiritual intelligence levels are more likely to establish meaningful relationships that provide enhanced emotional support, creating a strong foundation for well-being (Zohar & Marshall, 2000; House et al., 1988).

Patients facing chronic diseases often confront existential questions about life's purpose, suffering, and their place in the world (Sulmasy, 2002). Spiritual intelligence may influence how CKD patients interpret and cope with these existential challenges, providing a framework for finding personal meaning, acceptance, and hope in the face of illness (Vieten et al., 2016). There is a substantial association of spiritual intelligence and have an indirect relationship with social support and but helps in enhancing quality of life since spiritual intelligence is conceptualised on the meaning of life an individual seek and a person's relationship with the world (Sahebalzamani et al., 2013). This implies that social support but acts as a moderator which helps in enhancing impact of spiritual intelligence on quality of life.

The research study by Asiri et al. (2023) was carried out on assessing the association between religiosity, quality of life and social support in patients with chronic disease. The study found that high religiosity along with high social assistance have a substantial impact on life satisfaction of patient linked to health-related QoL domain. This implies that the role of social support and impact religiosity is significant in improving QoL in patients with chronic disease.

Quality of life is also linked to social support theory to some extent since QoL is grounded on the perceptions of an individual about their own positioning in life with respect to concerns, goals, standards, and expectations (Koller & Lorenz, 2002). Social support theory from publications by Francis Cullen (1994) and Do Drennon-Gala represents the concept linked on the proposition the emotional, informational, and instrumental supports lower the probability of neglectlessness, poor quality of life, social injustice which impact on mental health and physical well-being of an individual. This theory is mainly focused on how something favourably can help in preventing risks related to life threatening circumstances, mental health issues, and social well-being (Kort-Butler, 2017). This theory usually conceptualises as the social resources a person requires and can depend on when combating with life stressors and problems.

Moreover, the study by Alorani & Alradaydeh (2017) was based on assessing the association of social support and spiritual intelligence and found a favourable relationship between spiritual wellbeing with life satisfaction and perceived social assistance.

The spiritual intelligence theory explains the critical association between the variables of spiritual intelligence, social support and quality of life in the context of patients with chronic kidney diseases. The theory is used in the analysis of this study to understand the relationship between these variables in a better way and the potential impact of each of these variables might have on the other is also identified.

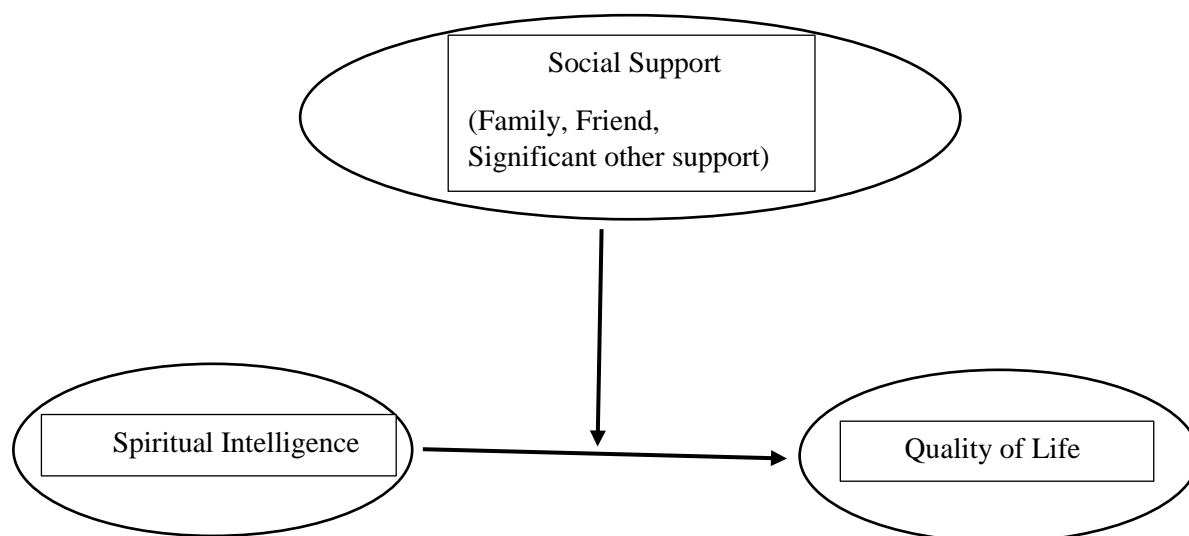
## **2.6 Conceptual framework**

In this model the independent variable is spiritual intelligence further consisting of four domains personal meaning, critical existential thinking, transcendental consciousness and the conscious state expansion while the moderating role will be of

social support consisting of three types or sources including family support, significant others' support and support from peers, while the dependent variable is quality of life which further consists of 5 subdomains comprising of physical health, psychological status, social interaction, spiritual status and environmental factors.

**Figure 1**

*Conceptual model of moderation*



## **Operational Definitions**

### **Spiritual intelligence**

Spiritual intelligence refers to the ability to access and apply spiritual or transcendent aspects of one's self and others, leading to a deeper understanding of life's meaning and purpose. It encompasses self-awareness, compassion, moral integrity, and the capacity to find meaning and connectedness beyond oneself.

In this study, spiritual intelligence was measured using the Spiritual Intelligence Self-Report Inventory (SISRI-24) (Amram, 2007). The SISRI-24 is a 24-item self-report questionnaire that assesses various aspects of spiritual intelligence, including existential



thinking, personal meaning, transcendental awareness, and consciousness state. Participants will rate their agreement with each statement on a Likert-type scale, with higher scores indicating higher levels of spiritual intelligence.

### **Social Support**

Social support refers to the emotional, informational, or instrumental assistance individuals receive from their social networks, such as family, friends, and significant others. It encompasses the perceived availability of support and the sense of belonging and connection to others.

Social support will be assessed using the Multidimensional Scale of Perceived Social Support (MSPSS) (Zimet et al., 1988). The MSPSS is a 12-item self-report questionnaire that measures perceived social support from family, friends, and significant others. Participants will rate their agreement with each statement on a Likert-type scale, with higher scores indicating higher levels of perceived social support.

### **Quality of Life (QoL)**

Quality of Life (QoL) refers to individuals' subjective perception of their well-being and overall life satisfaction in various life domains, including physical health, psychological health, social relationships, and the environment.

QoL will be assessed using the WHOQOL-Brief questionnaire (WHOQOL Group, 1995). (The WHOQOL-Brief is a 26-item self-report questionnaire that measures QoL. It includes subscales for physical health, mental health, social relationships, and environment. Participants will rate their level of agreement with each statement on a Likert-type scale, with higher scores indicating higher QoL in each domain.

Demographic variables include gender and age, which may influence CKD outcomes and psychosocial dimensions. Demographic variables will be collected through self-report questionnaires. Participants will indicate their gender (male, female, other) and age (in years). These variables will be used to examine their relationships with spiritual intelligence, social support, and QoL in CKD patients.

## CHAPTER 3

### RESEARCH METHODOLOGY

The research used quantitative research design, employing standardized scales to measure spiritual intelligence, social support, and QoL among a sample of CKD patients. Data was collected through self-report questionnaires, administered in-person. Statistical analyses, including correlation, multiple regression, t-test and moderation analysis were conducted to investigate the relationships between the variables under study.

#### **3.1 Research approach**

Chronic kidney patients with age range above 16 having at least matric level of qualification, were selected for data collection with the help of three scales which were to measure spiritual intelligence, social support and quality of life among these patients indicating quantitative results.

#### **3.2 Research strategy**

This study was carried out in hospitals of twin cities. The data was collected through self-report questionnaires.

#### **3.3 Research Design**

This study was based on correlational, quantitative research design.

### **3.4 Participants**

Purposive sampling method has been used in this study. The sample size comprised of n=196 age range from 16 to 66 years having qualification at least Matric, diagnosed patients with chronic kidney disease, medically referred cases and on dialysis for at least past 6 months. This sample size of 196.

The data was collected from different OPDs of different hospitals of Islamabad and Rawalpindi including Rawalpindi Institute of Urology and Tran-plantation (RIUT), Holy family Hospital Rawalpindi, Benazir Bhutto Hospital Rawalpindi and PIMS.

#### **3.4.1 Inclusion Criteria**

Participants having age range from age range above 16 years, qualification at least Matric, diagnosed with chronic kidney diseases, medically referred and having chronic kidney/peritoneal dialysis for past 6 months, along with comorbid including Hypertension and Diabetes were included in the sample.

#### **3.4.2 Exclusion Criteria**

People with other than chronic disease, having any other condition related to cardiac, pulmonary track or any other neurological condition, HIV were excluded from the study. Patients having any physical disability and those who were not comfortable to participate were excluded from the study.

### **3.5 Instruments**

The following three measures were used in this study.

### **3.5.1 The Spiritual Intelligence self-report inventory**

The inventory is developed by King, (2008). It is 24 item likert scale having Cronbach's alpha was 0.88. This instrument was translated in Pakistan by Kayani & kausar ( 2013), with Cronbach's alpha was .92. It includes four sub-scales; critical existential thinking, personal meaning production, transcendental awareness and conscious state expansion. The total score of the scale is obtained by adding up all the items scores or subscales scores after accounting for the reversed coded item i.e, item 6. The total range of scores on all 24 items of the scale is 0 – 96.

The subscales comprises of the items as Critical existential thinking consists of 7 items which are item no 1, 3, 5, 9, 13, 17 and 21 the range of which is 0 – 28. The second subscale personal meaning production contains 5 items which are 7, 11, 15, 19 and 23 and the range of this subscale is 0 – 20. The third transcendental awareness comprises of 7 items numbers as 2, 6\*, 10, 14, 18, 20 and 22 in which item no 6 is to be reversed scored before summing score its reverse scoring is as 0=4, 1=3, 2=2, 4=0 while the range of this subscale is 0 – 28. The fourth subscale is conscious state expansion which consists of 5 items numbered as 4, 8, 12, 16 and 24 the range of the subscale is 0 – 20.

### **3.5.1 Multidimensional Scale of perceived social support**

The scale is developed by Zimet, Dahlem, Zimet, & Farley, (1988). It is 12 item 7 points Likert scale having Cronbach's alpha was 0.93. The translated version of scale was used in the study. It was translated by Zafar & Kausar ( 2013)

The scale has 3 Subscales; Family comprising of item no (3, 4, 8 and 11), Friends consisting of items numbered as (6, 7, 9 and 12) and Significant other which is composed of items (1, 2, 5 and 10). The scores on complete scale are obtained by summing up all the items and higher scores indicate higher perceived social support while lower scores indicate lack of or insufficient social support perceived by the individual.

### **3.5.2 World Health Organization(WHO) Quality Of Life(QoL)-Brief**

The scale is developed by WHO (1996) and Translated in urdu by Khalid & Kausar (2006). It is 26 items likert scale having Cronbach's alpha was .96. It includes four subscales; physical health, mental health, social relationships and environment. The total score ranges from 26 to 156, where the higher scores indicate higher levels of quality of life.

The four domains consists of different items which are elaborated as Physical health consists of items no 3, 4, 10, 15, 16, 17 and 18 the raw scores of this domain range between 7 and 35. Psychological health the second domain consists of items no 5, 6, 7, 11, 19 and 26 the raw score lies between 6 and 30. The third domain named as social relationships is composition of three items which are 20, 21 and 22 the raw score of this lies from 3 to 15 while the fourth domain is environment comprising of items 8, 9, 12, 13, 14, 23, 24 and 25 the raw score is from 8 to 40.

### **3.6 Informed consent**

Researchers sent participants a permission document explaining that they may back out of the study at any time before to submitting the questionnaire, but that once it's in, they're stuck with it because of their anonymity. It was ensured to the participants that all of the participants' information, including their names and addresses, will remain confidential. The appropriate authorities have signed off on a permission form. Each individual also had their own personal privacy and confidentiality protected.

### **3.7 Demographic Form**

The demographic sheet comprises of gender, marital status, education, Illness History i-e chronic, type of kidney disease, age of diagnosis, kidney transplant (Yes, No), (Chronic kidney, Peritoneal Dialysis), time of dialysis, and frequency of dialysis.

### **3.8 Procedure**

The researcher reached out to patients in different hospitals of Rawalpindi and Islamabad with approval from the appropriate authorities. After a short explanation of the research, participants provided their informed permission. After then, there was no longer any uncertainty about the data. Participants were also asked to make an honest response and were acknowledged for their time and effort at the conclusion of the study.

### **3.9 Ethical Consideration**

The researcher took precautions to protect their anonymity, including avoiding disclosing information about themselves that may lead to their identification, such as their country or ethnic background. In the study, we did not reveal any names. Since everyone involved remains anonymous, all information shared remains secret.

### **3.10 Data Analysis**

We used SPSS 27 to do the statistical analysis. With parametric data, we compared the means of the two groups using an independent samples t-test. We conducted the Pearson correlation coefficient test to look for patterns in the data that could indicate a relationship between the variables under study. The moderating role of social support on the relationship between spiritual intelligence and quality of life was investigated using multiple linear regression analysis. Female and male patients with CKD were compared using the t-Test to identify gender differences in the impact of social support and spiritual intelligence on their quality of life.

## CHAPTER 4

### RESULTS

**Table 01**

*Frequencies, percentages along with Mean and Standard Deviations of Demographic variables  
Sample (N=196)*

Demographic variables	Categories	<i>f</i>	%	M	S.D
Age				34.75	11.68
Gender	Men	96	49.0		
	Women	100	51.0		
Education	High School	77	39.3		
	Intermediate	97	49.5		
	Degree	22	11.2		
Marital Status	Married	123	62.8		
	Unmarried	73	37.2		
Comorbidities (Diabetes and/or Hypertension)	Yes	158	80.6		
	No	38	19.4		
Illness Duration				4.03	2.38
Dialysis Duration				3.60	2.06
Transplant	Yes	12	6.1		

No 184 93.9

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Table 1 shows the frequency, percentages along with mean and standard deviation of demographic variables for the sample of N=196. Frequencies and percentages were computed to identify the demographic variables (gender, educational level, marital status, presences of comorbidities including diabetes or hypertension along with population gone through kidney transplant in total sample) indicating that the educational level of sample population was of Intermediate level with 49.5%, the married population percentage was higher (62.8%), the comorbidities presence was higher as 158 participants had diabetes or hypertension while the percentage of participants who had gone through kidney transplant was just 6.1%. For age, duration of illness and dialysis duration mean and standard deviations were calculated indicating mean age of 34.75 years and (S.D 11.68).



**Table 2***Alpha reliability of scale and subscales (N=196)*

Scale	No. of Items	M	S.D	Range	$\alpha$
SISRI-24	24	41.42	8.61	0 – 96	.86
( CET)	7	11.30	3.59	0 – 28	.74
(PMP)	5	9.10	2.88	0 – 20	.64
(TA)	7	12.50	3.10	0 – 28	.64
(CSE)	5	8.51	2.66	0 – 20	.74
MSPSS	12	46.09	10.80	12 – 84	.98
Family	4	15.87	4.19	4 –28	.74
Friends Support	4	15.30	4.04	4 –28	.72
Significant other Support	4	14.92	5.24	4 –28	.71
WHO- QoL Brief scale	26	68.93	9.15	26 – 156	.89
Physical health	7	17.83	2.99	7 – 35	.61
Psychological health	6	16.09	2.55	6 – 30	.63
Social Relationships	3	7.87	1.80	3 – 15	.72
Environment	8	22.06	3.91	8 – 40	.62

**Note:** SISRI = Spiritual intelligence self-report inventory, CET = critical existential thinking, PMP = personal meaning production, TA = Transcendental awareness, CSE = Conscious state expansion, MPSS=Multidimensional Scale of Perceived Social Support, WHO-QoL Brief = World health organization quality of life brief scale

Table 2 shows Cronbach alpha values for Spiritual intelligence self-report inventory-24 (SISRI-24), Multidimensional scale for perceived social support (MSPSS) and World health organization Quality of life brief scale (WHO-QoL Brief) along with their means, standard deviations, number of items, ranges of scores along with all the subscales of each instrument. All the scales were found to have good value of internal reliability. The alpha value of SISRI-24 is .86, the MSPSS had ( $\alpha = .98$ ) while the reliability of WHO-QoL Brief was found to be ( $\alpha = .89$ ). Cronbach alpha for all the subscale of SISRI-24, MSPSS and WHO-QoL Brief were determined and it was seen that all the subscales have acceptable internal reliability of items.

**Table 3**

*Descriptive statistics and inter-scale correlation among Spiritual intelligence, social support and quality of life (N=196)*

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. SISRI	-	.75**	.76**	.64**	.71**	.39**	.21**	.31**	.38**	.42**	.30**	.37**	.28**	.27**
2. CET		-	.47**	.30**	.30**	.33**	.22**	.19**	.33**	.33**	.31**	.25**	.16*	.23**
3. PMP			-	.31**	.45**	.41**	.25**	.29**	.42**	.46**	.32**	.34**	.36**	.34**
4. TA				-	.29**	.23**	.12	.18**	.23**	.23**	.10	.28**	.13	.14*
5. CSE					-	.14*	.01	.22**	.12	.20**	.12	.21**	.17*	.08
6. SS						-	.80**	.69**	.84**	.69**	.52**	.49**	.48**	.53**
7. FAM							-	.34**	.53**	.50**	.41**	.32**	.29**	.42**
8. FRI								-	.37**	.50**	.38**	.38**	.46**	.34**
9. SIG									-	.61**	.42**	.45**	.40**	.47**
10. QOL										-	.74**	.70**	.59**	.78**
11. PHY											-	.42**	.38**	.35*
12. PSY												-	.29**	.35**
13. SR													-	.39**
14. ENV														-

*Note.* \*\*\* $p < .00$ , \*\* $p < .01$ , \* $p < .05$  SISRI = Spiritual intelligence self-report inventory, CET = critical existential thinking, PMP = personal meaning production, TA = Transcendental awareness, CSE = Conscious state expansion, SS = Social support, FAM = family, FRI = Friends, SIG = Significant others, QOL = Quality of life, PHY = physical, PSY = Psychological, SR = Social relationship, ENV = Environment

Table 3 reveals that Spiritual intelligence (critical existential thinking, personal meaning production, Transcendental awareness, Conscious state expansion) and Social support (family social support, Friends social support, Significant other) are significantly correlated with Quality of life ( $r = .42$ ,  $p < .00$ ) (Physical ( $r = .30$ ,  $p < .00$ ), Psychological ( $r = .37$ ,  $p < .28$ ), Social relationship ( $r = .28$ ,  $p < .00$ ), Environment ( $r = .27$ ,  $p < .00$ )). Table 3 suggests that if spiritual intelligence and social support is high than it will improve quality of life among chronic kidney patients.

**Table 4**

*Mean difference between men and women on study variables (N=196).*

	Men (n=96)		Women (n=100)		t	P	95% CI		Cohen's d
	M	SD	M	SD			LL	UU	
SISRI	41.02	9.66	41.15	8.24	-.10	.91	-2.63	2.37	0.01
CET	11.26	3.47	11.29	3.74	-.05	.95	-1.03	.97	0.00
PMP	9.17	2.93	9.13	2.71	.10	.92	-.74	.82	0.01
TA	12.04	2.89	12.02	2.87	.04	.96	-.78	.82	0.06
CSE	8.55	3.68	8.71	2.49	-.36	.71	-1.03	.71	0.05
SS	46.37	11.93	46.13	9.99	.15	.87	-2.83	3.31	0.02
FAM	15.61	4.53	16.29	4.78	-1.03	.30	-1.97	3.15	0.14
FRI	15.34	4.33	15.22	3.71	.21	.83	-1.00	1.20	0.02
SIG	15.42	5.70	14.62	4.73	1.07	.28	-.66	2.26	0.15
QOL	69.33	10.66	68.74	7.46	.45	.65	-1.97	3.15	0.06
PHY	18.09	3.33	17.72	2.60	.87	.38	-.46	1.20	0.12
PSY	16.26	2.75	15.95	2.43	.84	.39	-.41	1.03	0.11
SR	8.17	1.95	7.60	1.64	2.22	.02	.06	1.07	0.31
ENV	21.95	4.36	22.18	3.35	-.41	.67	-1.31	.85	0.05

*Note.* \*\*\* $p < .00$ , \*\* $p < .01$ , \* $p < .05$  SISRI = Spiritual intelligence, CET = critical existential thinking, PMP = personal meaning production, TA = Transcendental awareness, CSE = Conscious state expansion, SS = Social support, FAM = family, FRI = Friends, SIG = Significant others, QOL = Quality of life, PHY = physical, PSY = Psychological, SR = Social relationship, ENV = Environment

It was hypothesized in our study that there will be significant differences between men (n=96) and women (n=100) in terms of Social support (family, Friends, Significant others), Quality of life (physical, Psychological, Social relationship, Environment), and Spiritual intelligence (critical existential thinking, personal meaning production, Transcendental awareness, Conscious state expansion) but the results of independent sample t-test for gender on study variables show that they do not differ statistically. Quality of life, social support, and spiritual intelligence are all the same for men and women with chronic renal patients, as shown in the table 4.

### Moderation Analysis

It was hypothesized that social support will moderate the relationship between spiritual intelligence and quality of life, for which moderation analysis was run through *process 4.3* by *Andrew F. Hayes*. Moderation analysis was run for all the three sub-domains of social support including family support, friends support and significant other support.

**Table 5**

*Moderating role of Social support between spiritual intelligence and quality of life (N=196)*

Variables	Quality of Life			
	B	<i>p</i>	S.E	$\Delta R^2$
Spiritual Intelligence	.55	.01	.22	.53
Friend Support	.84	.00**	.19	
Spiritual intelligence x Social support	-.00	.09	.00	.00
Covariates				
Age	.02	.61	.05	
Gender	-.19	.74	.97	
Marital status	-.51	.58	1.17	
Comorbidity	1.49	.21	1.36	
Illness Duration	-.06	.06	.45	
Dialysis duration	-.28	.00*	.49	
Transplant	-1.43	.06	2.24	
$R^2$	.73			
$F$	21.05			

Note. \*\*\* $p < .00$ , \*\* $p < .01$ , \* $p < .05$

The results revealed that spiritual intelligence as significant predictor of quality of life with having R square value of .73 and F value of 21.05. Whereas the interaction of spiritual intelligence and social support was found non-significant in its main effect with *p* value of .09. The value of R square for this interaction was .00. The covariates that were

controlled includes age, gender, marital status, presence of comorbidities (including diabetes or hypertension), the duration of both illness and dialysis and transplant. The duration of dialysis could be seen as significant with a p value of .00.

**Table 6**

*Moderating role of Family support between spiritual intelligence and quality of life (N=196)*

Variables	Quality of Life			
	B	<i>p</i>	S.E	$\Delta R^2$
Spiritual Intelligence	.80	.00**	.24	.42
Family Support	2.08	.00**	.60	
Spiritual intelligence x Family support	-.02	.05*	.02	.01*
Covariates				
Age	.06	.30	.06	
Gender	-.54	.61	1.08	
Marital status	-.66	.61	1.31	
Comorbidity	1.57	.30	1.52	
Illness Duration	.36	.47	.50	
Dialysis duration	-1.03	.05*	.53	
Transplant	-1.93	.44	2.50	
$R^2$	.42			
$F$	13.38			

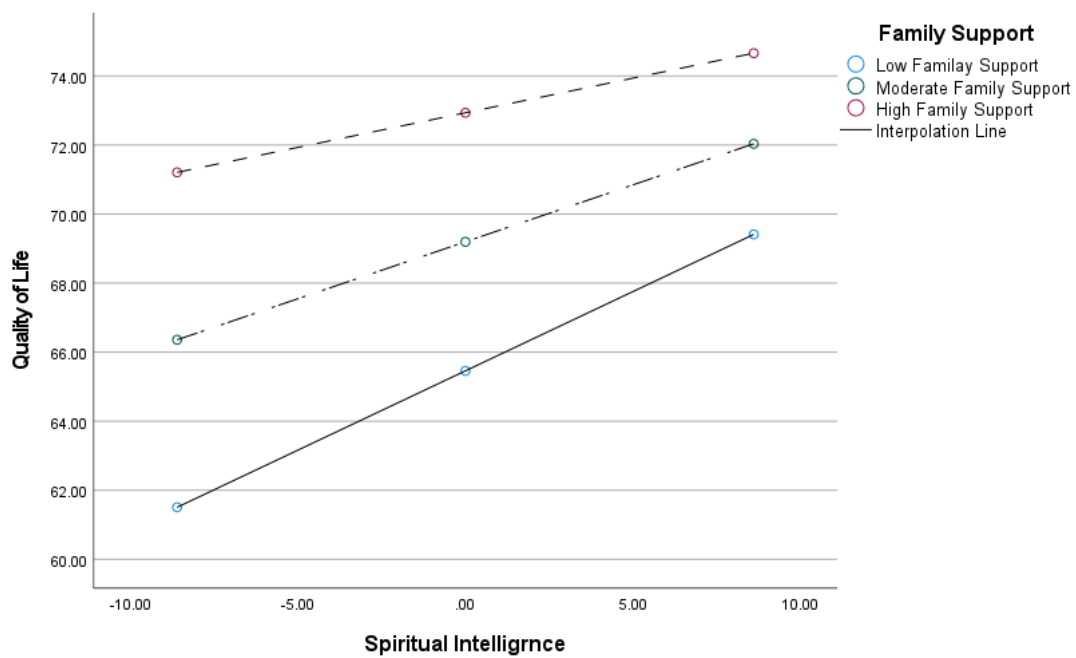
Note. \*\*\* $p < .00$ , \*\* $p < .01$ , \* $p < .05$

The results revealed that spiritual intelligence as significant predictor of quality of life with having R square value of .42 and F value of 13.38. As well as the interaction of spiritual intelligence and family support was found significant in its effect with  $p$  value of .05. The value of R square for this interaction was .01 which is significant as well. The covariates that were controlled includes age, gender, marital status, presence of comorbidities (including diabetes or hypertension), the duration of both illness and dialysis and transplant. The duration of dialysis could be seen as significant with a  $p$  value of .05. The results suggest that family support acts as a moderator between spiritual intelligence and quality of life, as the family support is high with spiritual intelligence high the quality of life increases.

Further the interaction could be seen significant in the interaction graph where spiritual intelligence is treated as independent variable, quality of life as dependent variable and family support as a mediator. See Figure 2.

**Figure 2**

*Interaction plot of Family support and Spiritual intelligence on Quality of Life*



**Table 7**

*Moderating role of Friends support between spiritual intelligence and quality of life (N=196)*

Variables	Quality of Life			
	B	<i>p</i>	S.E	$\Delta R^2$
Spiritual Intelligence	.78	.00**	.26	.41
Friend Support	2.09	.00**	.69	
Spiritual intelligence x Friend support	-.03	.07	.01	.01
Covariates				
Age	.10	.07	.06	
Gender	-.35	.74	1.10	
Marital status	-.71	.58	1.31	
Comorbidity	1.90	.21	1.53	
Illness Duration	.90	.06	.48	
Dialysis duration	-1.63	.00*	.51	
Transplant	-4.61	.06	2.48	
$R^2$	.64			
$F$	12.91			

*Note.* \*\*\* $p < .00$ , \*\* $p < .01$ , \* $p < .05$

The results revealed that spiritual intelligence as significant predictor of quality of life with having R square value of .64 and F value of 12.91. Whereas the interaction of spiritual intelligence and friend support was found non-significant in it's main effect with  $p$  value of .07. The value of R square for this interaction was .00. The covariates that were controlled includes age, gender, marital status, presence of comorbidities (including diabetes or hypertension), the duration of both illness and dialysis and transplant. The duration of dialysis could be seen as significant with a  $p$  value of .00.



**Table 8**

*Moderating role of Significant other support between spiritual intelligence and quality of life (N=196)*

Variables	Quality of Life			
	B	<i>p</i>	S.E	$\Delta R^2$
Spiritual Intelligence	.43	.01**	.17	.43
Friend Support	1.35	.00**	.45	
Spiritual intelligence x Significant other support	-.01	.24	.01	.00
Covariates				
Age	.07	.19	.05	
Gender	.41	.70	1.06	
Marital status	-.71	.58	1.29	
Comorbidity	1.86	.21	1.50	
Illness Duration	.20	.67	.49	
Dialysis duration	-.62	.24	.54	
Transplant	-2.12	.39	2.46	
$R^2$	.66			
$F$	14.27			

Note. \*\*\* $p < .00$ , \*\* $p < .01$ , \* $p < .05$

The results revealed that spiritual intelligence as significant predictor of quality of life with having R square value of .66 and F value of 14.27. Whereas the interaction of spiritual intelligence and significant other support was found non-significant in its main effect with  $p$  value of .24. The value of R square for this interaction was .00. The covariates that were controlled includes age, gender, marital status, presence of comorbidities (including diabetes or hypertension), the duration of both illness and dialysis and transplant.

## CHAPTER 5

### DISCUSSION

Among those with chronic kidney disease, we wanted to see how social support affected the relationship between spiritual intelligence and quality of life. In addition, we want to look at how spiritual intelligence relates to quality of life for those with chronic kidney disease. We use SPSS version 27 to analyze the data. There is a tick for the frequency of demographic factors. The result is analyzed using statistical methods including the correlation test, t-test, and moderation analysis.

To investigate the connection between patients with chronic kidney disease's spiritual intelligence, their social support' and their quality of life. Current study accepted the hypothesis. Quality of life ( $r = .42$ ,  $p .00$ ) (physical ( $r = .30$ ,  $p .00$ ), psychological ( $r = .37$ ,  $p .28$ ), social relationship ( $r = .28$ ,  $p .00$ ), and environmental ( $r = .27$ ,  $p .00$ ) were all significantly correlated with Spiritual intelligence (critical existential thinking, personal meaning production, Transcendental awareness, Conscious state expansion). Those with chronic kidney disease may have a better quality of life if they have high levels of spiritual intelligence and social support, as seen in Table 2.

This study's conclusions are in keeping with those of similar studies done in the past. According to research by Kim et al. (2018) and colleagues, patients are more likely to comply with their doctors' dialysis treatment and care plans if they have social support. Several studies found that patients on hemodialysis benefited greatly from having a strong social support system in place (Davison & Jhangri, 2010). Al Zaben et al. (2015) observed that those who had positive outlooks and social support had an easier time adjusting to life with a chronic disease.

Numerous studies have shown a connection between one's spiritual health and a better quality of life and a more satisfying living (Mauk & Schmidt, 2004). The quality of one's life is directly proportional to their level of spiritual intelligence (Emmons, 2009).

Quality of life is based on a number of different pillars, including one's social and spiritual health (Park et al., 2007). In order to effectively manage one's physical and mental health, spiritual health literacy is crucial (Beusterien et al., 1996).

The second goal was to study the correlation among all study variables including spiritual intelligence, social support and quality of life among chronic kidney disease patients. Current study accepted the hypothesis. The findings of the current research show that spiritual intelligence and social support and quality of life have significant correlations with each other. Quality of life among people with chronic kidney disease seems to increase with higher levels of spiritual intelligence and social support. This study's conclusions are in keeping with those of similar studies done in the past.

Previous research indicated that dialysis and an enhanced quality of life may have an effect on social support (Zimet et al., 1988). Reduced quality of contact with loved ones is only one of the many negative outcomes of living with a chronic illness, making it evident that hemodialysis patients would benefit greatly from greater social support (Al Zaben et al., 2015). Chronic kidney disease patients' spiritual intelligence affects their quality of life, as does social support (Schlackow et al., 2017; Walters & Boateng, 2020).

Following this objective, which states to examine the mean difference between men and women patients with chronic kidney disease in terms of spiritual intelligence, social support, and quality of life, we analyzed the latest data showing that chronic kidney disease has an impact on mental health and that spiritual intelligence help in improving quality of life. Results from the current study showed no statistically significant differences in spiritual intelligence (critical existential thinking, personal meaning production, transcendent awareness, conscious state expansion), social support (family, Friends, Significant others), or quality of life (physical, psychological, social relationship, environment). Men and women chronic kidney patients had similar experiences in terms of quality of life, social support, and spiritual intelligence.

This study's conclusions are in keeping with those of similar studies done in the past. Men and women engage in the same amount of religious and spiritual activities (Strawbridge, Wallhagen, Shema, & Kaplan, 2000), suggesting that such activities may have a positive effect on health. According to Zimet et al. (1988), spiritual intelligence does not vary significantly by gender. Patients with chronic renal illness have difficulties in research due to relationship disruption and low quality of life. According to research

(Davison & Jhangri, 2010), there is no discernible difference between the sexes in terms of happiness.

One last goal was to search whether or whether social support moderate the relationship between spiritual intelligence and quality of life in people with chronic kidney disease. Current study accepted the hypothesis. Recent research has shown a strong moderating effect for family support a sub-domain of social support in the relationship between spiritual intelligence and quality of life for those with chronic renal disease. Whereas the interaction between other two domains of social support were not significant indicating that in a spiritually intelligent individual when family support is provided sufficient enough it will enhance a person's quality of life.

This study's conclusions are in keeping with those of similar studies done in the past. Previous research has shown a correlation between spiritual intelligence and quality of life, and suggested that social support may play a moderating role in this connection. After a kidney transplant, several studies have demonstrated that one's mental and social health have a major impact on one's quality of life (Huang et al., 1996). The functional content of social connections consists of four types of social support: emotional support, instrumental support, informational support, and familial support. Having good friends may make a big difference in your happiness and well-being (Davison & Jhangri, 2010).

Patients with chronic kidney disease may benefit from developing their spiritual intelligence (Liu & Huang, 2010). According to a 1996 study by Huang et al., spiritual intelligence and social support both contribute to an enhanced quality of life. Patients' mental and physical health gets benefited by the social assistance from family (Barrios, 1986).

## **5.1 Conclusion**

Present study was conducted to explore impact of spiritual intelligence, social support on quality of life among chronic kidney disease patients. Three scales were used to explore the impact of variables on quality of life among chronic kidney disease patients. The data as gathered from twin cities Rawalpindi and Islamabad of chronic kidney disease patients. Results supported 3 hypotheses and rejected 1 hypotheses of study. There was a

significant correlation observed among all the study variables. The main effect of moderation of social support was not significant while it was observed to be significant with family support a sub-domain of social support as there are three sources of support for a person support from family, support of friends and the support by significant other that could be anyone a partner, family member like parents or siblings according to the perception of the person. Hence the results indicated that if family support is high along with spiritual intelligence it results in the betterment of ones quality of life.

## **5.2 Limitation and suggestions**

Major limitation of study is using cross sectional design. In order to give explanation of time duration of disease development. Further researches, other scales and additional factors can be explored which may involve in better quality of life of CKD patient role. As the majorly population of participants was of Muslim community so we cannot infer the results for other religious communities, in future research incorporating participants from different religious backgrounds could be helpful in understanding the religious factors and belief systems effecting the variables of social support and quality of life in patients with chronic kidney disease. In this study sample is collected from urban city, so we cannot generalize the data on patients living in rural areas. In future research experimental and longitudinal would be helpful to describing issues of quality of life. Future work will be helpful from larger sample. Larger sample will be more representative of help seeking chronic kidney patients.

## **5.3 Implications**

The study's findings will help raise consciousness about the connection between social support and spiritual intelligence in those with chronic renal disease. Improved quality of life for patients with chronic renal disease depends on raising awareness among care takers of the need of social support especially family support is indicated as a factor for enhancing the quality of life among patients of chronic kidney disease. All people with chronic renal disease and their caretakers should receive counselling on the

importance of social support in enhancing quality of life. This research will aid psychologists in raising consciousness about the importance of families support and spiritual intelligence for those with chronic renal disease. These research findings could be incorporated in the management of patients with CKD while planning a holistic management plan as clinical management along with psychological management could improve the overall wellness of patients.

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## **APPENDICES**

**APPENDIX A**

(Consent Form)



## APPENDIX A

میرا نام زینب بی بی ہے - میں بحریہ یونیورسٹی اسلام آباد میں ایم ایس کلینیکل سائیکالوجی 4 سمسٹر کی طالبہ ہوں۔ میں گردوں کی بیماریوں میں مبتلا لوگوں پر ایک تحقیق کرنا چاہتی ہوں - جس کا موضوع درج دیل ہیں۔

گردے کے دائمی امراض میں مبتلا مریضوں میں روحانی ذہانت ، سماجی مدد اور میعار زندگی۔

میرا ماننا ہے کہ ہر انسان اپنے نقطہ نظر کے اعتبار سے اہمیت کا حامل ہے۔ میری تحقیق میں آپکی شمولیت مددگار ثابت ہو گی میں آپ کے نقطہ نظر کی عزت کروں گی اور آپ کی میری تحقیق میں شمولیت پر آپ کی شکر گزار ہوں گی۔

آپکو کسی بھی وقت بوجہ پریشانی تحقیق چھوڑنے کا اختیار حاصل ہو گا۔ اس تحقیق سے جڑی آپکی تمام ذاتی معلومات کو پوشیدہ رکھا جائے گا۔ اور صرف اور صرف تحقیق کے مقصد سے استعمال کیا جائے گا۔

اگر آپ فراہم کردہ تفصیلات سے متفق ہیں اور میری تحقیق میں شمولیت پر رضامند ہیں تو براہ کرم پیچھے دی گئی جگہ پر دستخط کیجیے۔

شکریہ

ای میل ایڈریس : zmalik37405@gmailcom

دستخط امید وار:

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ای میل ایڈریس:

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رابطہ نمبر:

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## **APPENDIX B**

(Demographic form)

## APPENDIX B

### Demographic Sheet

عمر:

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جنس: مرد عورت

تعلیم کا معیار ہائی سکول انٹرمیڈیٹ ڈگری

ازدواجی حیثیت شادی شدہ غیر شادی شدہ

بیماری کی نوعیت

---

بیماری میں مبتلا ہوئے عرصہ:

---

گردے کی پیوندی کاری : ہاں یا نہیں

ڈائلا سز کا دورانیہ:

---

ڈائلا سز فریکوئنسی:

---

**APPENDIX C**

(The Spiritual Intelligence Self- report Inventory)

## APPENDIX C

### The Spiritual Intelligence Self Report Inventory

روحانی ذہانت کی خود بیان کردہ فہرست

عمر

سالوں میں

کسی ایک پر دائرہ : جنس

لگائیں

عورت (مرد)

ہدایات :

نیچے دئے گئے بیانات مختلف رویوں، سوچ کے عوامل اور ذہنی خصوصیات کو ماپنے کے لیے بنائے گئے ہیں، ہر بیان کو غور سے پڑھیے اور دئے گئے پانچ ممکنہ جوابات میں سے موزوں ترین نمبر پر دائرہ لگائیے۔ اگر آپ کو یقین نہ ہو یا کوئی بیان آپ پر لاگو نہ ہوتا ہو تو بہترین نظر آنے والے نمبر پر دائرہ لگائیں۔ براہ مہربانی ایماندار سے جواب دیجیے اور جواب اس بنیاد پر دیجئے جیسے کہ حقیقت میں ہیں نہ کہ جیسا آپ بننا چاہتے ہیں، پانچ ممکنہ جواب یہ ہیں۔

4		3		2		1		0	
مکمل درست		بہت درست		کچھ درست		غیر درست		بالکل نہیں	
4	3	2	1	0	1. میں نے اکثر حقیقت کی فطرت پہ سوال اٹھایا ہے یا غور کیا ہے۔				
4	3	2	1	0	2. میں اپنے جسم سے ہٹ کر اپنی ذات کے گہرے پہلوؤں کو پہچانتا/پہچانتی ہوں۔				
4	3	2	1	0	3. میں نے اپنے وجود کے مقصد یا وجہ کے بارے میں سوچنے میں وقت لگایا ہے۔				
4	3	2	1	0	4. میں شعور اور آگہی کی بلند کیفیات میں جانے کے قابل ہوں۔				
4	3	2	1	0	5. میں اس پر گہرائی سے غور کرنے کے قابل ہوں کہ موت کے بعد کیا ہوتا ہے۔				
4	3	2	1	0	6. یہ میرے لیے مشکل ہے کہ میں جسم اور مادے کے علاوہ کسی چیز کو محسوس کر سکوں۔				
4	3	2	1	0	7. میری زندگی کے معنی اور مقصد کو تلاش کرنے کی قابلیت مجھے پریشان کن حالات سے مقابلہ کرنے میں مدد دیتی ہے۔				
4	3	2	1	0	8. میں شعور اور آگہی کی بلند کیفیات پر پہنچ کر اپنے اوپر قابو رکھ سکتا/سکتی ہوں۔				
4	3	2	1	0	9. میں نے زندگی، موت، حقیقت اور ہستی جیسی چیزوں کے بارے میں اپنے نظریات بنائے ہوئے ہیں۔				

4	3	2	1	0	میں اپنے ا ور دوسرے لوگوں کے درمیان ایک گہرے تعلق سے آگاہ ہوں۔	.10
4	3	2	1	0	میں اپنی زندگی کے لیے ایک مقصد یا وجہ کو بیان کر سکتا/سکتی ہوں۔	.11
4	3	2	1	0	میں شعور ا ور آگہی کے مختلف درجات کے درمیان آزادی سے گھوم سکتا /سکتی ہوں۔	.12
4	3	2	1	0	میں اکثر اپنی زندگی کے واقعات کے معنی پر غور کرتا/کرتی ہوں۔	.13
4	3	2	1	0	میں اپنے آپ کو گہرا ا ور غیر طبعی ذات کے طور پر بیان کرتا/کرتی ہوں۔	.14
4	3	2	1	0	جب مجھے ناکامی کا تجربہ ہو تو تب بھی میں اس میں سے معنی تلاش کر سکتا/سکتی ہوں۔	.15
4	3	2	1	0	میں اکثر شعور ا ور آگہی کی بلند کیفیات میں مسائل ا ورا انتخابات کو زیادہ واضح دیکھ سکتا/سکتی ہوں۔	.16
4	3	2	1	0	میں نے اکثر انسانوں ا ور باقی کائنات کے تعلق پر غور کیا ہے ۔	.17

4	3	2	1	0	میں زندگی کے غیر مادی پہلوؤں کے بارے میں بہت زیادہ آگاہ ہوں۔	.18
4	3	2	1	0	میں اپنی زندگی کے مقصد کے مطابق اپنے فیصلے کرنے کے قابل ہوں۔	.19
4	3	2	1	0	میں لوگوں میں خوبیاں پہچان لیتا/لیتی ہوں جو ان کے جسم ، شخصیت ا ور جذبات سے زیادہ بامعنی ہوں۔	.20
4	3	2	1	0	میں نے گہرا غور کیا ہے کہ کہیں کوئی عظیم طاقت یا قوت ہے یا نہیں (مثلاً خدا، دیوی، مقدس ہستی ا ور عظیم قوت وغیرہ)	.21
4	3	2	1	0	زندگی کے غیر مادی پہلوؤں کو جان لینا مجھے محفوظ محسوس کرنے میں مدد دیتا ہے۔	.22
4	3	2	1	0	میں اپنے روز مرہ تجربات میں معنی ا ور مقصد تلاش کر سکتا/سکتی ہوں۔	.23
4	3	2	1	0	میں شعور ا ور آگہی کی بلند کیفیات میں جانے کے لیے اپنے طریقہ کار بنائے ہوئے ہیں۔	.24

115. Translated by Khubaib Kayani & Rukhsana Kausar, Ph.D in 2013.

## **APPENDIX D**

(Multidimensional Scale of Perceived Social Support)

## APPENDIX D

### Multidimensional Social Support Scale

#### ہدایات:

مندرجہ ذیل بیانات کو غور سے پڑھیں اور بتائیں کہ آپ ان سے کس حد تک متفق یا غیر متفق ہیں۔ ہر بیان کے آگے دیئے گئے جوابات میں سے کسی ایک پر (✓) کا نشان لگائیں۔

بہت زیادہ متفق	زیادہ متفق	معمولاً متفق	درمیانہ	معمولاً غیر متفق	زیادہ غیر متفق	بہت زیادہ غیر متفق	
							1. ایک خاص شخص ہے جو ضرورت کے وقت میرے ارد گرد موجود ہے۔
							2. ایک خاص شخص ہے جس کے ساتھ میں اپنی خوشیاں اور غم بانٹ سکتا / سکتی ہوں۔
							3. میرا خاندان واقعی میری مدد کرنے کی کوشش کرتا ہے۔
							4. میں جذباتی مدد اور حمایت ضرورت کے وقت اپنے خاندان سے حاصل کرتا / کرتی ہوں۔
							5. ایک خاص شخص ہے جو درحقیقت میرے لئے سکون کا ذریعہ ہے۔
							6. میرے دوست واقعی میری مدد کرنے کی کوشش کرتے ہیں۔
							7. میں اپنے دوستوں پر انحصار کر سکتا / سکتی ہوں جب چیزیں غلط ہوں۔
							8. میں اپنے مسائل کے متعلق اپنے خاندان سے بات کر سکتا / سکتی ہوں۔
							9. میرے دوست ہیں جن کے ساتھ میں اپنی خوشیاں اور غم بانٹ سکتا / سکتی ہوں۔
							10. میری زندگی میں ایک خاص شخص ہے جو میرے احساسات کا خیال رکھتا ہے۔
							11. میرا خاندان فیصلہ کرنے میں میری مدد کے لئے رضامند ہے۔
							12. میں اپنے مسائل کے متعلق اپنے دوستوں سے بات کر سکتا / سکتی ہوں۔



## **APPENDIX E**

(WHO-Quality of Life Scale Brief)

## APPENDIX E

### WHO- Quality of Life- Brief

ہدایات:

اس سوالنامہ میں آپ کی زندگی کے معیار ، صحت اور زندگی کے دیگر پہلوؤں کے بارے میں پوچھا جائے گا۔ براہ مہربانی اپ تمام سوالات کے ۱۱ دن۔ ار آپ سی سوا کے ۱۱ کے بارے میں یقینی طور پر کچھ نہیں کہہ سکتے تو سب سے مناسب ۱۱ کا چناؤ کریں۔ عموماً یہ وہ ۱۱ ہو سکتا ہے وا کہ آپکے ذہن میں سب سے پہلے آئے۔ آپ سے گزارش ہے کہ اپنے ذاتی معیار ، اُمیدیں۔ ، خوشیاں اور خدشات ذہن میں رکھیں۔ سوالات دیتے وقت پچھلے دو ہفتوں کی زندگی کو ذہن میں رکھیں۔ مثلاً  
کیا آپ کو دوسروں کی ایسی مدد حاصل ہے وا آپ اپنے ہوں

بالکل نہیں	تھوڑی بہت	درمیانی حد تک	بہت زیادہ	بہت ہی زیادہ
1	2	3	4	5

اگر پچھلے دو ہفتوں سے آپ کو دوسروں کی بہت زیادہ مدد حاصل رہی ہو تو آپ نمبر 4 دائرہ لگا سکتے ہیں۔  
کیا آپ کو دوسروں کی ایسی مدد حاصل ہے جو آپ چاہتے ہیں۔

بالکل نہیں	تھوڑی بہت	درمیانی حد تک	بہت زیادہ	بہت ہی زیادہ
1	2	3	4	5

اگر پچھلے دو ہفتوں سے آپ کو دوسروں کی بہت زیادہ مدد حاصل نہیں رہی ہو تو آپ نمبر 4 دائرہ لگا سکتے ہیں۔

کیا آپ کو دوسروں کی ایسی مدد حاصل ہے جو آپ چاہتے ہیں۔

آپ سے گزارش ہے کہ ہر سوا کو غور سے پڑھیں اور اپنے احساسات کاجائزہ لیں اور پھر اُس نمبر پر دائرہ لگائیں وا آپ کے احساسات کو بہتر طور پر ظاہر کرتا ہو۔

1	آپ اپنے معیار کی زندگی کو کس درجہ کامحسوس کرتے ہیں۔	بہت برا 1	برا 2	نہ اچھا نہ برا 3	اچھا 4	بہت اچھا 5
2	آپ اپنی صحت سے کس حد تک مطمئن ہیں۔	بہت غیر مطمئن 1	غیر مطمئن 2	نہ مطمئن نہ غیر مطمئن 3	مطمئن 4	بہت مطمئن 5

مندرجہ ذیل سوالات میں آپ کچھ مخصوص چیزوں کے بارے میں پوچھا جائے گا کہ ان سے آپ کا پچھلے دو ہفتوں میں کس حد تک تجربہ ہوا ہے۔

3	آپ کس حد تک محسوس کرتے ہیں کہ جسمانی درد آپ کے لئے وہ کام کرنے میں رکاوٹ بنتی ہے جس کا کرنا آپ کے لئے ضروری ہوتا ہے۔	بالکل نہیں	تھوڑا بہت	درمیانی حد تک	بہت زیادہ
4	روزمرہ کاموں کی ادائیگی کے لئے آپ کس حد تک طبی علاج کی ضرورت پڑتی ہے۔	1	2	3	4
5	آپ کس حد تک اپنی زندگی سے لطف اندوز ہوتے ہیں۔	1	2	3	4
6	آپ کس حد تک اپنی زندگی کو بامعنی محسوس کرتے ہیں۔	1	2	3	4
7	آپ کس حد تک اپنے آپ کو توجہ مرکوز کرنے کے قابل سمجھتے ہیں۔	1	2	3	4

5	4	3	2	1	آپ روزمرہ زندگی میں اپنے آپ کو کس حد تک محفوظ کرتے ہیں۔	8
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5	4	3	2	1	آپ کے ارد گرد کا طبعی ماحول کس حد تک صحت مندانہ ہے۔	9
5	4	3	2	1	کیا آپ روزمرہ زندگی کے لئے مناسب توانائی محسوس کرتے ہیں۔	10
5	4	3	2	1	کیا آپ کے لئے اپنی ظاہری جسمانی شکل و صورت قابل قبول ہے۔	11
5	4	3	2	1	کیا آپ کے پاس اپنی ضروریات پوری کرنے کے لئے مناسب پیشہ مواد ہے۔	12
5	4	3	2	1	آپ کو روزمرہ زندگی گزارنے سے متعلق کتنی ضروری معلومات دستیاب ہیں۔	13
5	4	3	2	1	آپ کو سیر و تفریح کے مواقع کس حد تک میسر ہیں۔	14
5	4	3	2	1	آپ اپنے ارد گرد جسمانی طور پر کس حد تک چلنے پھرنے کے قابل ہیں۔	15

مندرجہ ذیل سوالات میں آپ سے پوچھا گیا ہے کہ پچھلے دو ہفتوں سے آپ نے اپنے زندگی کے مختلف پہلوؤں کے حوالے سے کس قدر اچھا یا مطمئن محسوس کیا۔

مطمئن	مطمئن	انتہائی	مطمئن	غیر مطمئن	غیر مطمئن	انتہائی	آپ اپنی نیند سے کس حد تک مطمئن ہیں	16
5	4	3	2	1	مطمئن	غیر مطمئن		
5	4	3	2	1	مطمئن	غیر مطمئن	آپ اپنی روزمرہ کام سرانجام دینے کی صلاحیت سے کس حد تک مطمئن ہیں۔	17
5	4	3	2	1	مطمئن	غیر مطمئن	آپ اپنی کام کرنے کی صلاحیت سے کس حد تک مطمئن ہیں۔	18

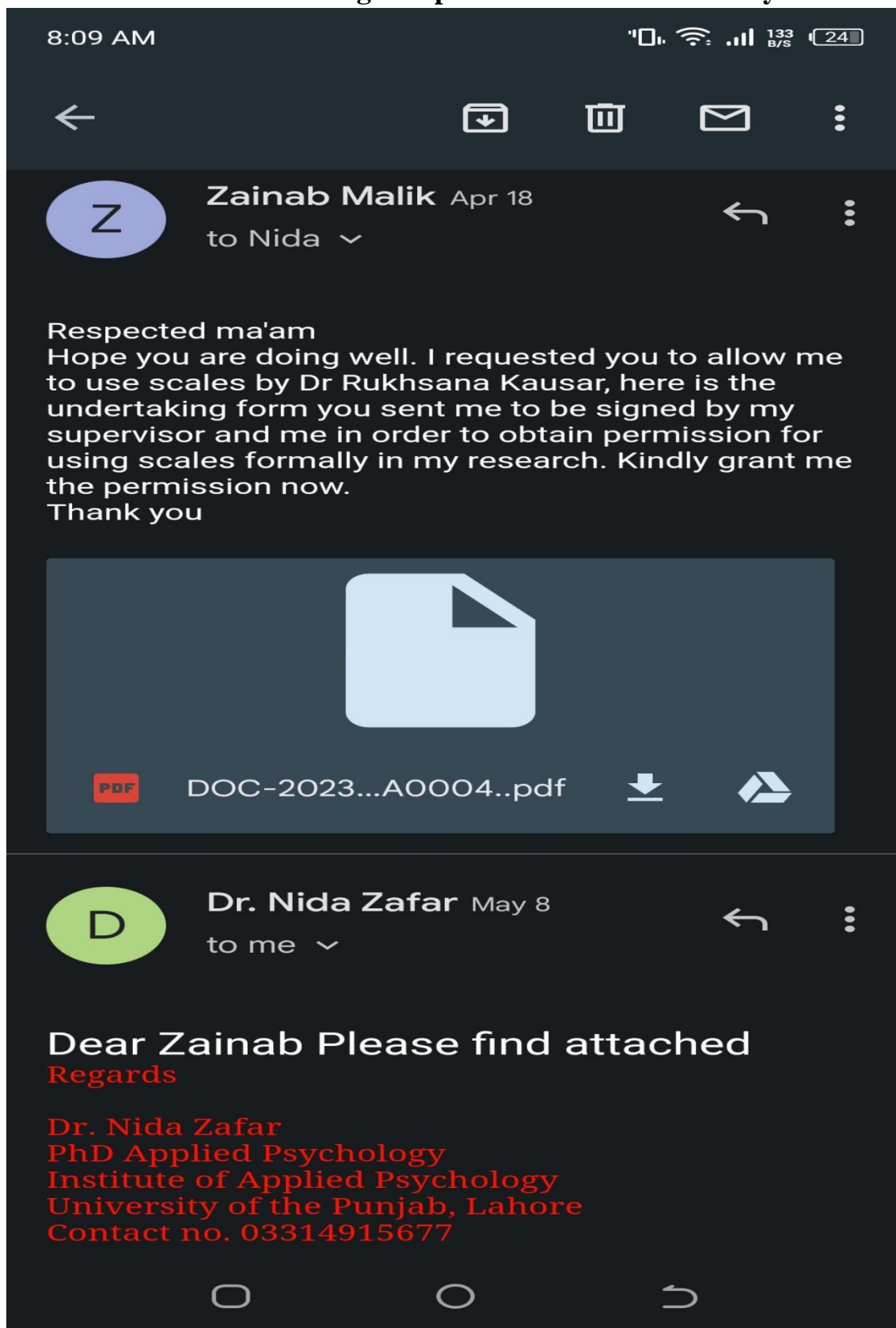
5	4	3	2	1	آپ اپنی ذات سے کس حد تک مطمئن ہیں۔	19
5	4	3	2	1	آپ اپنے تعلقات سے کس حد تک مطمئن ہیں۔	20
5	4	3	2	1	آپ اپنی جنسی زندگی سے کس حد تک مطمئن ہیں۔	21
5	4	3	2	1	آپ اپنے دوستوں سے ملنے والی مدد سے کس حد تک مطمئن ہیں۔	22
5	4	3	2	1	آپ اپنی رہائش کی جگہ کے حالات سے کس حد تک مطمئن ہیں۔	23
5	4	3	2	1	آپ طبعی سہولتوں تک اپنی رسائی سے کس حد تک مطمئن ہیں۔	24
5	4	3	2	1	آپ اپنے ذرائع آمدورفت سے کس حد تک مطمئن ہیں۔	25
5	4	3	2	1	آپ کس حد تک منفی احساسات کا شکار رہتے ہیں مثلاً اداسی، مایوسی، پریشانی اور افسردگی وغیرہ۔	26
بمیں	بہت زیادہ	کبھی کبھار	بعض اوقات	کبھی نہیں		
5	4	3	2	1		

## **APPENDIX F**

(Email of permission for using adapted versions of Scales)

## APPENDIX F

## Permission email for using adapted version of scales by Author



## **APPENDIX G**

(Permission letter for data collection)

## APPENDIX G

### Permission Letter for data collection



**Bahria University**  
Discovering Knowledge

08-May-2023

### TO WHOM IT MAY CONCERN

#### REQUEST FOR DATA COLLECTION

It is stated that **Ms. Zainab Bibi** Enrollment No. 01-275212-020 is a student of MS Clinical Psychology Bahria University Islamabad Campus conducting research on **"Spiritual intelligence, social support and quality of life among patients diagnosed with chronic kidney diseases"** under supervision of undersigned. It is requested that kindly allow her to collect the data from your esteemed institution.

Regards,

*Noshi Iram Zaman*  
08/05/2023  
**Dr. Noshi Iram Zaman**  
Senior Assistant Professor  
Bahria School of Professional Psychology  
Bahria University  
E-8 Islamabad

*Rizwana Amin*  
08/5/2023  
**Dr. Rizwana Amin**  
Principal (BSPP)  
Bahria School of Professional Psychology  
Bahria University  
E-8 Islamabad

*DMS (A)  
D/2 check  
Questionnaire  
allow*

*OK*  
30/5/23



## **APPENDIX H**

(Plagiarism Report)

## APPENDIX H

### Plagiarism Report

#### Thesis SI

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