Arab American University

Faculty of Graduate Studies

Spiritual Well-Being, Psychological Well-Being, and Quality Of Life among Patients Undergoing Hemodialysis at West Bank, Palestine

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This thesis was submitted in partial fulfillment of the requirements for the Master`s degree in Intensive Care Nursing

September /2023

Thesis Approval

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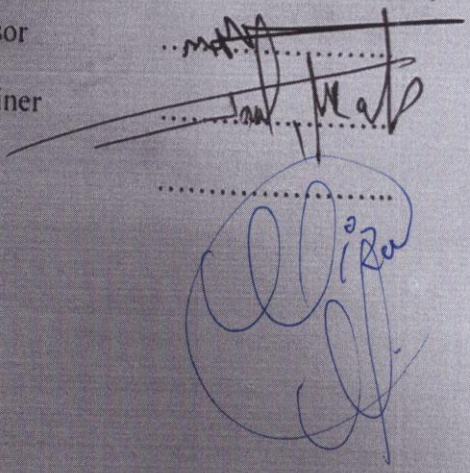

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Declaration

I attest that this research submitted for the degree of Master is the result of my own research, and that this thesis (or any of its parts) has not been submitted from any other previous works to any other university or institution.

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Dedication

In honor of the first guide of humanity, the Prophet Mohammad, peace be upon him. To my valued family and my wife, this thesis stands as a profound expression of the steadfast cheer and limitless support you have generously shared with me. Throughout the extensive hours of research, the hurdles faced, and the moments of victory, your presence has been my unwavering incentive.

To my parents, who have illuminated my educational trail, I dedicate this endeavor. And to my cherished wife, my companion throughout this journey and in life, this thesis mirrors the unwavering love and reassurance you have showered upon me. Your enduring patience, empathy, and ceaseless motivation have been my steadfast foundation. Amid late nights and early mornings, you have been a listening ear and a comforting presence.

May this thesis stand as a tribute to the strong bond we share, and may it crier the inception of a forthcoming journey filled with more successes, shared objectives, and treasured instants. This thesis is a respect to my supervisors, and my friends those who have stood by me, inspiring and supporting me throughout this expedition. May this work contribute to the advancement of our domain and the betterment of society at large. In addition, I extend this dedication to the souls of the Palestinian martyrs and the captives of freedom languishing in Israeli prisons.

With all my gratitude and affection,

Ata Alshareef. 2023

Acknowledgment

I am thankful to Allah for bestowing upon me, enabling me to successfully finalize this thesis.

Dear Supervisors: Dr. Imad Abu Khader and Prof. Malakeh Malak: I hope this letter finds you well. I am writing to express my honest gratitude for your guidance, support, and mentorship throughout the process of completing my master's thesis. Your expertise and dedication have been invaluable in shaping my research and helping me navigate the challenges of this academic journey. I am grateful for your perceptive feedback, which has consistently pushed me to think critically and explore new scopes within my research topic.

I also want to extend my appreciation for the time you have devoted to our meetings and discussions. Your availability to address my queries, provide clarifications, and engage in thought-provoking conversations has greatly enriched my understanding of the subject matter. Furthermore, I would like to acknowledge the support of the American Arab University staff and Post graduated faculty members who have contributed to my academic journey. Their collective wisdom and encouragement have played an important role in shaping my approach to research and learning. Finally, I would like to express my thankfulness to my family, friends, and peers for their unwavering encouragement and understanding throughout this course. Their emotional support has been a constant source of motivation. I am proud of the work we have accomplished together, and I am excited to present the culmination of our efforts. Thank you once again for your mentorship and for believing in my potential. I am truly fortunate to have had you as my supervisor.Sincerely,

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List of Abbreviations

Abbreviation	Full Name
ANOVA	Analysis Of Variance
CKD	Chronic Kidney Disease
ESRD	End Stage Renal Disease
EWB	Existential Well-Being
GFR	Glomerular Filtration Rate
IRB	International Review Board
ILS	Israeli Shekel
KDIGO	Kidney Disease Improving Global Outcomes
MOH	Ministry Of Health
RRT	Renal Replacement Therapy
PMP	Per Million Population
PWB	Psychological Well-Being
PWBS	Psychological Well-Being Scale
QOL	Quality Of Life
RWB	Religious Well-Being
SPSS	Statistical Package Of Social Sciences
SWB	Spiritual Well-Being,
SWBS	Spiritual Well-Being Scale
WHO	World Health Organization
WHO QOL-BREF	World Health Organization Quality of Life Assessment- Brief Version

ABSTRACT

Background: End-stage renal disease (ESRD) is a global health concern. Patients need long-term therapy. Hemodialysis is a common treatment measure for ESRD worldwide that exerts a great negative impact on a patient's well-being and overall quality of life.

Objectives: This study sought to assess the spiritual well-being (SWB), psychological well-being (PWB), and quality of life (QOL) among patients undergoing hemodialysis at the West Bank.

Methods: A cross-sectional, descriptive correlational study was adopted. A convenience sample of 413 Palestinian patients receiving hemodialysis in eleven centers operating in the West Bank completed a structured, self-administered questionnaire. Data collected using Psychological Well-being Scale (PWBS), Spiritual Well-being Scale (SWBS), and World Health Organization Quality of Life- BREF (WHO QOL-BREF) during the period between March 28 and August 10, 2023.

Results: The mean scores for SWB, PWB, and QOL were 90.1 (SD ± 13.0), 69.2 (SD± 8.6), and 11.8 (SD± 2.1), respectively. There was a significant positive association between QOL with psychological well-being, spiritual well-being, educational level, and marital status and a negative association with age. Multiple linear regression showed that spiritual well-being, psychological well-being, educational level, and marital status were the predictors for quality of life.

Conclusion: Hemodialysis patients had a moderate level of SWB, high levels of PWB, and poor QOL. High level of SWB, high level of PWB, high level of education, and single/married were predictors for high-level QOL. Thus, spiritual care and counseling programs should be offered to hemodialysis patients to improve their quality of life.

Keywords: Quality of Life, Hemodialysis, Spiritual Wellbeing, Psychological Wellbeing, End Stage Renal Disease, Hemodialysis.

CHAPTER ONE

INTRODUCTION

1.1. Introduction

Kidney disease is a diverse condition that affects both kidney function and structure (McConnachie et al., 2021). It is classified into chronic kidney disease (CKD) and End-Stage Renal Disease (ESRD) (Major et al., 2019). The Kidney Disease Improving Global Outcomes Foundation guidelines define chronic kidney disease (CKD) based on the kidney damage markers, specifically proteinuria and glomerular filtration rate (GFR) (de Boer et al., 2020). CKD is defined as the presence of both factors (GFR less than 60 mL/min and albumin greater than 30 mg per gram of creatinine) as well as abnormalities of the kidney's structure or functionalities for more than three months (Khwaja, 2012; Lameire et al., 2021). The last stage of CKD called End-Stage Renal Disease (ESRD) is defined as a GFR of less than 15 mL/min(Lees et al., 2019). It was revealed that the prevalence of CKD among adults in developed countries ranged between 10% and 13%, however, the data in developing countries are limited and heterogeneous (Pilger et al., 2021).

ESRD patients require renal replacement therapy (RRT) for survival, such as dialysis, or kidney transplantation (Webster et al., 2017). Hemodialysis and peritoneal dialysis (PD) are the two dialysis modalities that are currently available to ESRD patients (Zou et al., 2022). Globally the most common type of dialysis is hemodialysis (Queeley & Campbell, 2018). Hemodialysis processes are done regularly many times every week (Adwan et al., 2022). Approximately 89% of ESRD patients worldwide undergo hemodialysis (Himmelfarb et al., 2020). In the West Bank, 12 hemodialysis

centers provide regular hemodialysis for 1,601 ESRD patients according to Health Annual Report (MOH Palestinian, 2022).

One of the challenges that patients treated with hemodialysis face is spiritual well-being (SWB). Spirituality is defined as “a person's experience of connectedness with the essence of life, search for connectedness to oneself, others, nature, and sacredness” (Doumit et al., 2019). Spirituality, along with physical, mental, and social dimensions, is one of the four dimensions of human health. Beliefs, practices, and religious and spiritual experiences can all affect a patient’s health (Pilger et al., 2017). SWB is a spiritual component that may be characterized as a sense of meaning in life, unity, peace, and a sense of drawing strength and comfort from one's religion (Rabitti et al., 2020). According to studies, without SWB, the other biological, psychological, and social dimensions cannot function properly or reach their full potential, and thus the highest quality of life cannot be achieved (Jafaripoor et al., 2018). Spirituality improves physical, mental, and social health in people with chronic diseases (Lima et al., 2020). Higher levels of spirituality also resulted in happiness and moral development (Jaberi et al., 2019). Spiritual support increases patients' ability to adapt to the onset of disease and accelerated recovery, according to research (Pilger et al., 2017).

Furthermore, psychological well-being (PWB) is simply a person’s pleasure with their existence. PWB focuses on comprehending the entire spectrum of well-being and is connected to physical health. Furthermore, the patient's psychological state influences their physical condition (Helali et al., 2022). Moreover, people with chronic conditions such as ESRD experience psychological distress while attempting to control their ailment (Wang et al., 2020). Additionally, patients undergoing hemodialysis suffer from debilitating psychological symptoms as a result of the exhausting chronic

hemodialysis treatment, which makes them vulnerable to a wide range of emotional and psychological problems (Shim & Cho, 2018).

Depression, fear, stress, unsatisfactory emotional reaction, and poor sleep quality are the most frequent psychological disorders among patients undergoing hemodialysis (Firoz et al., 2016) Anxiety and depression frequently coexist among individuals with ESRD and they appear to mutually intensify each other through their combined impact (van Sandwijk et al., 2019) . Various factors contribute to sleep disturbances in ESRD patients, including depression, anxiety, the presence of uremic toxins, and adverse reactions to medications, among other factors (Lai et al., 2018) . Furthermore, prior studies have suggested that this psychological distress persists even when CKD patients commence dialysis therapy (Kao et al., 2020). Improving this population's SWB and PWB may help reduce healthcare expenses while also alleviating certain elements of distress, resulting in an increased overall quality of life (QOL).

As a result, hemodialysis has a significant negative impact on patients' QOL. owing to the accompanying impairment or limitations in almost all aspects of their daily lives (Benjamin & Lappin, 2021). Also, due to the high burden of comorbidity and complications. In addition to the negative consequences that depression has on social relationships, it is frequently considered that QOL is often much worse for patients who undergo hemodialysis compared to the general population (Broers et al., 2015). World Health Organization (WHO) defined QOL as an individual's perception of their position in life about their goals, expectations, standards, and concerns in the context of the culture and value systems in which they live (Iqbal et al., 2020).

Hemodialysis patients' QOL is greatly influenced by their socio-demographic characteristics. such as marital status, age, gender, education degree, and income profoundly affect the QOL experienced by patients undergoing hemodialysis (Alshelleh et al., 2023; Zyoud et al., 2016). Getting older results in poorer QOL because of physical and cognitive activity impairment (Rehman et al., 2020). Females were found to have poorer QOL than males (Shahrin et al., 2019). Higher education degree was able to notice a better QOL (Gerasimoula et al., 2015). Poor income is associated with poor QOL (Joshi et al., 2017). Married patients report better levels of QOL than single or divorced (Abdulqader & Ali, 2023).

1.2. Problem Statement

ESRD is a chronic and life-threatening condition that imposes significant psychological and spiritual distress on patients, leading to a diminished Quality of Life (Pawlaczyk et al., 2022). The global prevalence of ESRD varies widely, with the Middle East reporting 360 cases per million population (PMP) in 2018, compared to 2,160 PMP in the United States in 2016 (Malekmakan et al., 2018; 2018 USRDS annual data report). In the United States alone, over 500,000 people are affected by ESRD (Benjamin & Lappin, 2021).

Hemodialysis, a common treatment for ESRD, can exacerbate physical, mental, social, and economic challenges for patients. Studies indicate that 33% of hemodialysis patients experience chronic pain, with 33% suffering from depression and 28% experiencing anxiety (Ishtawi et al., 2023; Noor et al., 2021). These patients also grapple with poor spiritual and psychological well-being, as well as a compromised QOL (Aini & Wahyu, 2020b; Alshogran et al., 2021). Religion and spirituality have

been identified as protective factors against depression and can enhance QOL in ESRD patients (Moons et al., 2019).

The psychological and spiritual wellbeing of ESRD patients significantly impact their QOL. While some studies reveal that patients experience psychological distress and low PWB levels, others suggest high PWB levels among hemodialysis patients (Hamdan-Mansour et al., 2015; Aini & Wahyu, 2020). Furthermore, moderate SWB levels were reported, with a positive correlation between SWB and QOL, indicating that higher SWB levels correspond to lower psychological distress (Ebrahimi et al., 2014; Fradelos, 2021; Musa et al., 2018; Senmar et al., 2020).

In Palestine, ESRD ranks as the sixth leading cause of disease burdens, accounting for 3.6% of all chronic illnesses' disability-adjusted life per year, with a rising prevalence mirroring global trends (Mosleh et al., 2018; Zyoud, Al-Jabi, et al., 2016). Palestinian government-run hospitals, which serve 90% of ESRD patients, face ongoing financial challenges and limited resources, adding to the burden (Samoudi et al., 2021; Zyoud, Al-Jabi, et al., 2016). However, among Palestinian hemodialysis patients, QOL levels appear to be suboptimal (Ishtawi et al., 2023; Zyoud, Daraghmeh, et al., 2016).

In conclusion, ESRD patients in Palestine and worldwide grapple with a myriad of physical, psychological, and spiritual challenges that significantly affect their overall QOL. Despite their interconnectedness, these aspects have not received adequate attention in researches and in patient care. Therefore, it is essential to comprehensively assess and provide holistic care addressing all dimensions of health, not just the physical, in order to enhance the well-being and QOL of ESRD patients. The study

aimed to shed light on these overlooked aspects and provide recommendations for their improvement.

1.3. Purpose of the Study

This study aimed to assess Spiritual Wellbeing, Psychological Wellbeing, and Quality of Life among patients undergoing hemodialysis at the West Bank.

1.4. Objectives of the Study

1- To assess the levels Spiritual Wellbeing, Psychological Wellbeing, and Quality of Life among patients undergoing hemodialysis.

in the West Bank.

2- To determine the differences in Spiritual Wellbeing, Psychological Wellbeing, and Quality of Life according to sociodemographic characteristic among patients undergoing hemodialysis in the West Bank

3- To determine the relationship between Spiritual Wellbeing, Psychological Wellbeing, and sociodemographic characteristics (gender, marital status, education, age, monthly income, and duration of disease), and Quality of Life for patients undergoing hemodialysis in the West Bank.

4- To assess the predictors of Quality of Life for patients undergoing hemodialysis in the West Bank.

1.5. Study Questions

1- What are the levels of Spiritual Wellbeing, Psychological Wellbeing, and Quality of Life for patients undergoing hemodialysis in the West Bank?

2- Are there any differences in Spiritual Wellbeing, Psychological Wellbeing, and Quality of Life according to sociodemographic characteristic among patients undergoing hemodialysis in the West Bank?

3- What is the relationship between Spiritual Wellbeing, Psychological Wellbeing, and sociodemographic characteristics (gender, marital status, education, age, monthly income, and duration of disease), and Quality of Life for patients undergoing hemodialysis in the West Bank?

4- What are the predictors of Quality of Life for patients undergoing hemodialysis in the West Bank?

1.6. Study Variables

The study included dependent variable which was QOL and independent variables that involved SWB and PWB, in addition to sociodemographic characteristics.

1.7 Significance of the study:

Nurses play an important role in improving the lives of patients. Nurses must identify areas of patient treatment regimens that may be negatively affecting the patient's health and develop strategies to reduce them. In addition, nurses play a crucial role in the treatment of hemodialysis patients because they require specialized nursing care that goes beyond technical expertise and nursing care plans. They necessitate therapeutic and interpersonal ties, as well as quick reactions to bodily complaints, functional constraints, psychological disturbances, and information demands.

This study will lead to appreciable changes in healthcare and the standard of care given to ESRD patients treated by hemodialysis. Additionally, it helps healthcare professionals by allowing them to understand the current state of patients spiritual, psychological, and QOL well-being. The factors should be assessed and examined due

to their importance. It can cause adjustments and enhancements to care and therapy, or it might demonstrate the ineffectiveness of particular therapies. The different issues that patients may encounter are also identified using QOL.

This type of information can be shared with future patients to help them anticipate and comprehend the implications of their illness and treatment. A better understanding of the factors that influence patient perceptions of quality of life can help healthcare providers, advance medical knowledge, aid in the development of social policy, and contribute to public and private decision-making. Patients, physicians, nurses, social workers, policymakers, and funding sources for caring and management of hemodialysis patients to insert new guidelines to improve patients' health in general.

1.8 Conceptual and Operational Definition of Terms

1.8.1. Conceptual Definitions

Spiritual Well-being. It is described as a condition that connects the individual's mind and body, society, intelligence, and health, hence supporting the individual's attitudes and life objectives. as a sense of meaning in life, unity, peace, and a sense of drawing strength and comfort from one's religion (Rabitti et al., 2020). Furthermore, SWB encompasses both a psycho-social and a more religious dimension, serving as a uniting force that seeks to combine the physical, emotional, and social elements of health (Coppola et al., 2021).

Psychological Well-being. It refers to a person's favorable opinion of their skills, connections, and feelings; it encompasses elements like independence, self-acceptance, and good interactions with others (Mugizi et al., 2021). It is an important aspect of

mental health that contains hedonic (enjoyment, pleasure) and eudaimonic (meaning, fulfillment) happiness, as well as resilience(Tang et al., 2019). PWB is concerned with how much individuals believe they have influence over their life (Ryff & Singer, 2006).

Quality of Life. It is a person's insight into their location in life in the context of their philosophy, value system, and connection to life aims, prospects, values, and other associated matters (Theofilou, 2013). WHO defined the QOL as the individuals' perceptions of their life status concerning the context of culture and value system in which they live and their expectation, goals, concerns and standards (WHO, 2012). As a result, one's QOL is very subjective. Although one individual may define QOL in terms of riches or life pleasure, another may define it in terms of competencies such as having the ability to live a good life in terms of emotional and physical well-being (Aqtam et al., 2023).

1.8.2. Operational Definitions

Spiritual Well-being. It was evaluated using Spiritual Well-being Scale (SWBS) (Paloutzian & Ellison,1982) that consists of 20 items, where 10 items measured religious well-being and other 10 items evaluated existential well-being. These items are rated on a 6-point Likert scale ranging from 1 (strongly disagree) to 6 (strongly agree). The overall score from the SWBS was computed by summing the responses to all twenty items after reversing the negatively worded items. It ranges from 20 to 120, with a higher score representing greater spiritual well-being.

Psychological Well-being. It was measured using psychological well-being scale (PWBS) (Ryff & Keyes, 1995). The short form of this scale consisted of 18 items that assesses six aspects of psychological functioning: self-acceptance, environmental mastery, positive relations, purpose in life, personal growth, and autonomy. Responses

ranged from strongly disagree (1) to strongly agree (6) on a 6-point Likert scale. The overall psychological well-being score was computed by summing responses to all 18 items after reversing the negatively worded items. Consequently, the total scores of PWBS ranging from 18 to 108 with higher scores representing greater well-being.

Quality of Life. It was assessed using the World Health Organization Quality Of Life-BREF (WHOQOL-BREF). It consists of 24 items distributed in four domains: physical (7 items), social relationships (3 items), psychological (6 items), and environmental (8 items). Each item is rated on a 5-point Likert scale ranging from 1 (very dissatisfied/very poor) to 5 (very satisfied/very good). The scores for this scale ranging from 4 to 20, in which higher scores indicating better functional domain status (WHOQOL Group, 1998).

1.9 Summary

ESRD is a complicated issue and has implications on both the psychological and physical health of patients. Research on hemodialysis patients has primarily focused on physical health. Few studies have investigated the association between SWB on the QOL among hemodialysis patients, but none have focused on the relationship between SWB, PWB, and QOL. Therefore, this study purposed to assess the SWB, PWB, and QOL among patients undergoing hemodialysis at the West Bank.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter discusses some of the research and adds fundamental knowledge regarding End Stage Renal Disease (ESRD) and hemodialysis, spiritual well-being, psychological well-being, and quality of life. Variables connected to them. This review of the literature intends to investigate the connection between patients undergoing hemodialysis's spiritual, psychological, and quality of life.

2.2 Backgrounds

Chronic Kidney Disease (CKD)

Chronic kidney disease is a rising community health matter. This condition causes a steady decline in kidney function that can eventually progress to ESRD and necessitate RRT or a kidney transplant (Ren et al., 2019). According to the Health Annual Report-Palestine 2022, 1601 patients in the West Bank were identified to have ESRD and need hemodialysis in 2022, up from 1,119 patients in 2016. This represents a significant rise in the number of patients needing hemodialysis (Palestinian, MOH., 2017; Palestinian, MOH., 2022). Age, smoking, obesity, hyperlipidemia, diabetes, hypertension, metabolic disorders, and body mass index are all common risk factors for renal failure (Nazzal et al., 2020).

According to the National Kidney Foundation, CKD is classified into five stages, the last stage is called ESRD which means that the glomerular filtration rate is less than 15 mL per minute per 1.73m2 surface area of the body, at this stage patients may require dialysis regardless of glomerular filtration rate (Ammirati, 2020). ESRD is

one of the chronic diseases that endanger patients' physical as well as mental health (Pei et al., 2019). This disorder is irreversible. If not managed by RRT, the majority of patients would finally deteriorate to complications such as cardiovascular disease, infection, progressive uremia, and other serious conditions (Lim et al., 2021).

ESRD consequences are not limited to the patient himself, but it goes beyond that to include the patient's family and the entire community. Each nation spends a sizable sum on ESRD care each year (Malekmakan et al., 2018). Along with this, the CKD patient's Nephrologist is responsible for monitoring them. Endocrine and cardiovascular specialists also assist in patient treatment. Additionally, dietitians need to evaluate nutritional status and recommend a diet strategy to slow the progression of the disease. Because mental issues may be linked to renal illness as it progresses, psychologists are also anticipated to participate in patient care (Wong et al., 2018).

When a patient has ESRD, RRT is utilized to remove extra waste and fluid from the body to compensate for the lost renal function. The three main forms of current RRT are kidney transplantation, PD, and hemodialysis. For the majority of ESRD patients, hemodialysis has developed into an established, life-sustaining main treatment. It is usually done three times a week, or as per the patient's state requirement (Camacho-Alonso et al., 2018).

The Effects of Hemodialysis Therapy on Patients

Patients with ESRD who require hemodialysis therapy face a multitude of challenges and stressors that affect various aspects of their daily existence, critical for their well-being. However, hemodialysis is long-term or even lifelong therapy that places several constraints on the patient's lifestyle, including the need to comply with fluid intake restrictions, vascular access care, and medication. These restrictions go

beyond just attending routine dialysis sessions (Vilca Gamarra, 2022). According to Mafi et al. (2019), patients undergoing hemodialysis had moderate to severe physiological and emotional stress. The effects of hemodialysis therapy on patients can be classified as physical, psychological, financial, marital, physical activity limitations, and treatment-related issues based on the literature study.

Several physiological effects were experienced by hemodialysis patients. A study conducted on 126 hemodialysis patients in two dialysis centers in Turkey reported fatigue, weakness, muscle and joint pains, constipation, and itching as the most frequent and most severe physiological symptoms experienced by patients (Mollaoğlu & Başer, 2021). Another study conducted by Qaddumi et al. (2020) to evaluate the stresses experienced by Palestinian hemodialysis patients discovered that the majority of these patients reported feeling fatigued, experiencing loss of physical function, believing hemodialysis to limit their ability to travel go on vacation, and having diminished sexual urges. The most prevalent psychological side effects of hemodialysis are stress and anxiety (Zibaei et al., 2020).

Depression is also considered a common issue for dialysis patients, impacting them on both psychological and physical levels (Albuhayri et al., 2022). A study conducted at Baqubah Hospital teaching in Diyala City to analyze the degree of depression, suicide, and stress for patients in dialysis units and to determine the association between the psychological effects of depression, suicide, and stress of hemodialysis on patients undergoing hemodialysis. As a result, 27% of patients had minor depression, and 33% of patients had mild psychological stress. Also, 10% of patients reported a modest suicide risk (Jassim et al., 2021). Patients with hemodialysis had a major change in body appearance, sleep difficulty, limited clothing styles, larger

arm after forming a fistula, widespread edema, change in body weight, change in skin color, worry about the future, and diminished muscular tone. This can exacerbate patients' anxiety and psychological stress (Gunarathne et al., 2022).

Spiritual Well-being

Spirituality is a dynamic and intrinsic aspect of humanity in which people seek ultimate meaning, purpose, and transcendence, as well as experience relationships with themselves, their families, their communities, societies, nature, and the significant or sacred. Beliefs, values, traditions, and practices all contribute to spirituality (Puchalski et al., 2014). SWB, related to the concept of well-being, is broadly defined as a person's spiritual "state of affairs" (Alvarez et al., 2016). According to this definition, SWB refers to the perceived state of humanity's spiritual aspect. To have good SWB a person must be content with the meaning, purpose, and connectedness in one's life (Clark & Hunter, 2019). Even so, SWB is seen as a vital and central component of individuals' and families' lives; it may influence decision-making, problem-solving, and dealing with life situations (Alradaydeh & Khalil, 2018).

Spirituality and religion are significant sources of strength for coping with chronic illnesses, claim, there is widespread agreement that religion and spirituality can improve psychological health and adaptability (Chatrung et al., 2015). SWB is extensively regarded and acknowledged as a vital part of human life (Goodwin & Kraft, 2022). SWB has a significant impact on how patients understand and respond to illness, gives inner strength to cope with discomfort, and encourages positive and active adaptations during times of stress. Numerous religious and spiritual practices influence lifestyle choices that are directly related to the results of hemodialysis, such as fluid and dietary habits (Fasting) (Megahed et al., 2019). A study done by Novita et al. (2022) at

AL-Ihsan Hospital, Bandung Regency, intended to evaluate the association between spirituality and resilience in hemodialysis patients. The study, which included 125 hemodialysis patients revealed a significant relationship between spirituality and resilience among hemodialysis patients.

According to studies on spirituality in ESRD patients, these patients have a variety of mental demands that are connected to and have an impact on how well they are handling the condition psychologically, and these needs seem to persist throughout the course of the disease (Fradelos, 2021). According to the nursing literature, SWB levels in HD patients range from low to moderate, with the majority reporting moderate levels (Musa et al., 2018).

Musa et al. (2018) carried out a quantitative, cross-sectional correlational study to investigate grades of SWB and their correlations with depression, anxiety, and stress. The results y discovered that hemodialysis patients had relatively low levels of SWB, moderate depression, severe anxiety, and mild to moderate stress. They concluded that greater spiritual and existential well-being of Jordanian hemodialysis patients was significantly associated with less depression, anxiety, and stress. Some patients utilized religious and spiritual beliefs and practices as coping techniques to deal with their sadness, anxiety, and stress.

Senmar et al. (2020) conducted a descriptive study in Iran to investigate the incidence of psychological symptoms in hemodialysis patients and their association with SWB. The study included 150 hemodialysis participants. There was a reverse and significant association between the overall score of SWB and the levels of stress ($r= 0.265$, $p=0.001$), anxiety ($r= 0.243$, $p=0.003$), and depression ($r= 0.281$, $p=0.001$) among the 150 participants. Depression, anxiety, and stress were common in

hemodialysis patients, and all three had a significant association with the patient's SWB. In other words, those who had higher degrees of SWB had lower levels of psychological symptoms.

In a study conducted in the Gaza Strip, the spiritual and overall health of the QOL of patients undergoing hemodialysis are the most affected dimensions of satisfaction, while the physical and psychosocial QOL were the least affected (El Kass et al., 2020).

Psychological Well-being

Health and PWB are tightly related. There are three different types of psychological health: evaluative health (also known as life satisfaction), hedonic health (feelings of happiness, sadness, etc.), and eudemonic health (sense of purpose and meaning in life) (Steptoe et al., 2015). PWB is a person's sense of fulfillment with his or her existence. It focuses on comprehending the entire spectrum of well-being and is related to physical health. In addition, the patient's psychological state influences their physical condition. Poor PWB can affect self-acceptance because the patient thinks they haven’t purpose in life, poor relationships with the environment or other people are created, and the patient is unable to accept the strengths and shortcomings in their lives (Aini & Wahyu, 2020a). Moreover, people with chronic conditions such as ESRD experience psychological distress while attempting to control their ailment (Hamdan-Mansour et al., 2015). Hemodialysis also has an impact on patients' social lives in terms of work, activity, and economic needs. Moreover, hemodialysis affects patients' self-confidence and PWB, impacting around one-third of hemodialysis patients (Jones et al., 2018).

The prevalence of mental disorders among hemodialysis patients such as anxiety and depression has increased (Khan et al., 2019). In Jordanian study conducted by Nabolsi et al. (2015) found that more than half of hemodialysis patients had moderate to severe depression, with more than 21% having severe depression. These mental health issues were linked to less treatment adherence and QOL. The prevalence of depression in hemodialysis patients is approximately three times higher than in other patients, with 10%-66% reported in some studies (Işık Ulusoy & Kal, 2020; Mosleh et al., 2020).

A study conducted in Palestine to measure depression among ESRD patients undergoing hemodialysis found that elderly patients, females, living in rural regions or camps, poor income, not getting enough exercise, being unemployed, and having many comorbidities were all related to higher depression ratings (Al-Jabi et al., 2021).

Dietary restrictions, medication side effects, underlying illnesses, reliance on dialysis machines, poor sleep, lack of mobility, and changes in sexual activity have all contributed to mental disorders such as anxiety and depression in these patients, lowering their QOL (Hagemann et al., 2018). Patients on hemodialysis slept more than usual, and depression was the main predictor of QOL (Almutary, 2022).

A study was conducted on 117 Egyptian patients with ESRD who were receiving hemodialysis and ranged in age from 26 to 77 from the dialysis unit at Shebin El Kom Teaching Hospital and Menoufia University Hospital. They found that patients with ESRD who were receiving hemodialysis had a significant incidence of mental disorders. Depression and anxiety disorders were the mental conditions that affect these people the most. Age and educational attainment among ESRD patients were statistically significantly correlated with QOL (Elhadad et al., 2020).

Psychiatric illness is common among patients with chronic disorders, particularly those with ESRD, and hurts patients' QOL, according to a study that was conducted to estimate the prevalence and type of psychiatric morbidity, and QOL in patients undergoing hemodialysis. (64%) of the patients had a psychiatric diagnosis. Depression was the most common psychiatric diagnosis among the patients studied, with 40.6% having Major Depression Disorder and 37.5% having adjustment disorder with depressed mood (Jadhav et al., 2014). In a study on 239 patients conducted in an Indonesian hospital to investigate the determinants of QOL among hemodialysis patients according to gender differences. The findings revealed higher QOL levels and lower levels of symptoms of depression in women compared to men.

A study was conducted by Bahadır-Yılmaz et al. (2022) to investigate the psychological and spiritual well-being of hemodialysis patients in Turkey. Descriptive and correlational research comprised 86 hemodialysis participants. The SWBS and PWBS used to collect data. There was a favorable relationship between spiritual and psychological well-being ($r = 0.315$, $p = 0.003$). PWB and age explained 39% of the total variation ($F = 7.593$, $p = 0.001$).

To assess the impact of psychosocial therapies on the decrease in anxiety and depression in persons with hemodialysis, Alradaydeh and Khalil (2019) carried out a systematic review and meta-analysis study to evaluate the change in depression, anxiety, and QOL. Adults receiving hemodialysis must deal with special psychological challenges that make their treatment journey more taxing. Three types of psychosocial therapies given to adult hemodialysis patients were reported. According to the study, there was a moderate impact of psychosocial intervention on depression and anxiety in individuals receiving hemodialysis. In adult patients undergoing hemodialysis,

psychosocial therapies such as psychological support or relaxation-based therapy appears to lower depression and anxiety. According to preliminary research, psychological therapies may improve the QOL for patients undergoing hemodialysis.

Quality of Life (QOL)

It is a broad phrase for well-being, includes multiple dimensions of an individual's existence, including wealth, occupation, the environment, physical and psychological health, and religious beliefs (Ishtawi et al., 2023). QOL is a multidisciplinary concept used in health research to describe a set of variables that includes physical, psychological, social, and functional dimensions (Fayers & Machin, 2013). The WHO defines QOL as an individual’s perception of their position in the life in the context of the culture in which they live and in relation to their goals, expectations, and standards and concerns (The World Health Organization quality of life assessment (WHOQOL,1995).

People’s QOL affected negatively by many factors such as air pollution, toxins, noise, and pollution. Also, reduced owing to building environmental variables such as pollution-related ailments such as respiratory infections, asthma, and noise exposure, which over time can cause hearing impairment, hypertension, sleep disruption, anxiety, and depression. Social-economic variables such as money, education, and occupation may have an impact on an individual's daily life and QOL. At the same time, environmental features such as green space, a clean environment, safe parks, and a healthy lifestyle can reduce stress and are associated with better QOL in all four domains can positively impact QOL (Wong et al., 2018). The two primary elements of quality of life are physical and mental component scores. Changes in the dimensions of

physical and mental components among hemodialysis patients have been documented in the literature (Burlacu et al., 2019).

There are additional disease-specific QOL variables. Hemodialysis may be a crucial component for ESRD patients. They face changes in their everyday lives as well as the continuation of their job, school, and life ambitions. A range of physical, emotional, and social challenges can affect their QOL. Nevertheless, some hemodialysis patients reported worse sleep quality, discomfort, exhaustion, vomiting, and decreased physical activity all of these factors would affect their QOL (Dembowska et al., 2022). hemodialysis patients report having a bad QOL due to their physical ailments, which include feeling exhausted, in pain, and frequently restless. This is because people no longer have the desire to live a great life and have begun to give up on the effects of the illness (Camacho-Alonso et al., 2018). Several variables, such as age, gender, duration of illness, frequency of hemodialysis therapy, and social support, might affect a patient's ability to improve their quality of life. With the help of these elements, it is anticipated that the patient will be able to adjust to and deal with environmental changes, developing coping skills in the process (Harahap, 2018). According to the literature, hemodialysis patients have a poor QOL, with a low mean level in various Western and non-Arab countries (Pilger et al., 2017; Tannor et al., 2019).

A multicenter cross-sectional observational study was carried out by Naseef et al. (2023) at different dialysis centers in Palestine aiming to investigate the factors influencing the QOL of hemodialysis patients (N=271) using the Kidney Disease Quality of Life (KDQOL-SFTM) questionnaire. The findings revealed that patients in Palestine had lower physical component summaries scores. Additionally, income and

educational status had a negative impact on the three dimensions of the questionnaire. Additionally, among the three primary domains, physical role, employment status, and emotional role had the lowest ratings.

A study conducted at a multicenter, in Palestine among ESRD patients receiving hemodialysis therapy found that pain symptoms had a considerable detrimental effect on QOL. Also, elderly patients, females, those underweight or overweight, no formal education, the unemployed, those with low economic income levels, smokers, those with multiple comorbid conditions, and patients with longer dialysis histories were at higher risk of having worse QOL (Samoudi et al., 2021).

In a study conducted at two of the largest hemodialysis centers in Saudi Arabia, the results found that higher education level, higher income, and longer duration on dialysis were factors associated with better QOL, while old age patients with a history of diabetes were factors associated with a poor QOL (Alghamdi et al., 2023).

Medical therapies like hemodialysis might help people livelonger lives but they can also cause poor QOL and psychological discomfort. As a result, scientists have begun to investigate the function of SWB in improving QOL and decreasing psychological discomfort in hemodialysis patients. SWB is one of the essential dimensions of health that QOL may influence. The descriptive-analytical study aimed to examine the association between SWB and QOL in hemodialysis patients found a considerable positive relationship between various aspects of QOL and SWB (Ebrahimi et al., 2014). Additionally, Fradelos et al. (2021) investigated the effect of spirituality on the QOL of ESRD patients undergoing hemodialysis. A cross-sectional study was carried out in six dialysis units in Greece. The sample included 367 patients. The findings found that spirituality and its components such as meaning in life and

peace had a favorable influence on QOL. Spirituality can improve the QOL of patients. The study has shown that patients who have good SWB will have better QOL and more satisfaction with their healthcare.

Musa et al. (2022) carried out a quantitative, cross-sectional study to explore the relation between SWB, and QOL among Jordanian Muslim hemodialysis patient. They found patients had a moderate level of SWB, and a poor QOL. On addition, results revealed a significant moderate positive correlation between the SWB and its dimensions, and QOL.

2.3. Summary

In conclusion, the knowledge gap in this area is related to the need for more integrated research that investigates the relationships between spiritual well-being, psychological well-being, and quality of life among hemodialysis patients, as well as the potential benefits of interventions aimed at improving these aspects of well-being. The literature proposed that addressing the spiritual and psychological requirements of patients undergoing hemodialysis is important for their overall well-being and QOL. There is a lack of studies regarding these issues among Palestinian patients undergoing hemodialysis. Therefore, there is a need for further research to better understanding these relationships and to develop effective interventions that can improve the well-being of these patients.

CHAPTER THREE

METHODOLOGY

3.1. Introduction

This chapter describes the study design, study setting, identification of population and sample, the study instruments, data collection procedures, ethical considerations, and statistical analysis.

3.2. Study Design

This study adopted a cross-sectional, descriptive correlational design to assess SWB, PWB, and QOL for patients undergoing hemodialysis at the West Bank/ Palestine.

3.3. Study Setting

This study targeted all hemodialysis centers operating on the West Bank. A total of 11 hospitals, 10 governmental hospitals and one teaching hospital in the West Bank were selected to perform this study. These hospitals are:

An-Najah National University Teaching Hospital, Ramallah Governmental Hospital, Martyar Dr. Khalil.S. Governmental Hospital, Darweesh Nazal Governmental Hospital, Tubas Turkish Governmental Hospital, The Martyar Yaser Arafat Governmental Hospital, Jericho Governmental Hospital, Alhusien Governmental Hospital, Abo Alhasan Alqasem Governmental Hospital, Prince Alia Governmental Hospital, and Thabet Thabet Governmental Hospital.

- An-Najah National University Teaching Hospital is located in Nablus and was established in 2013 jointly with the Faculty of Medicine and Health Sciences at

An-Najah. It's classified as non-governmental and non-profit. It has a dialysis unit that serves 320 patients and 86 dialyzers machines.

- Ramallah Governmental Hospital is a public hospital established in 1963. A decision was made in 2010 to make it the largest hospital in the West Bank (Palestine Medical Complex). The compound has a dialysis department that serves 280 patients with 60 dialyzer machines.
- Martyar Dr. Khalil.S. Governmental Hospital in Jenin was established in 1961. The dialysis unit serves 184 patients, and they have just 30 dialyzer machines.
- Darweesh Nazal Governmental Hospital in Qalqylia City also has a dialysis unit that consists of 14 dialyzer machines and serves 51 hemodialysis patients.
- Tubas Turkish Governmental Hospital in Tubas City. The dialysis unit serves 49 patients and has 12 dialyzer machines.
- The Martyar Yaser Arafat Governmental Hospital in Salfit City. The dialysis unit serves 52 patients and has 17 dialyzer machines.
- Jericho Governmental Hospital in Jericho. The dialysis unit serves 44 patients and has 15 dialyzer machines.
- Alhusien Governmental Hospital in Beit Jala City. The dialysis unit serves 132 patients and has 36 dialyzer machines.
- Abo Alhasan Alqasem Governmental Hospital in Yatta City. The dialysis unit serves 80 patients and has 20 dialyzer machines.
- Prince Alia Governmental Hospital in Hebron City. The dialysis unit serves 300 patients and has 60 dialyzer machines.
- Thabet Thabet Governmental Hospital in Tulkarem City. The dialysis units serve 134 patients and have 16 dialyzer machine.

3.4. Population and Sampling

The target population of this study was patients diagnosed with ESRD who were undergoing hemodialysis at dialysis centers in West Bank /Palestine. Approximately 1,567 patients with ESRD were being treated with hemodialysis according to Health Annual Report-Palestine 2020 (MOH Palestinian, 2022). The participants were more than 18 years old and were of both genders at the HD units. The study's fieldwork was place between March 28 and August 10, 2023. The 11 hospitals running on the west bank cared for all 413 hemodialysis patients.

A convenience sampling method was employed. The study's sample frame, which exclusively took into account patients undergoing hemodialysis was consistent with the convenience sampling approach. This study's primary emphasis was on ESRD patients receiving hemodialysis at several dialysis services in the West Bank. Participants who met the inclusion criteria were recruited from the target centers, where the total number of ESRD patient's number who undergoing hemodialysis in 11 hospitals is 1620 patients.

To determine the lowest requisite sample size, the sample size was calculated using G*Power software version 3.1.9.7 (Faul et al., 2009). The P level was set at (.05). The power level was set at (.90), and the effect size (ES) set at (.05). This value of ES fell at the small effect size. Based on the entered values, the calculated total sample size (N) was 390 participants.

The number of patients from each center was determined according to the number of patients who received dialysis in those units. Based on the calculation of the minimum number of participants required for the study, it was recommended that the number of participants should not be less than 390 individuals. This number represents

25% of the total number of patients in each kidney dialysis center. Consequently, 25% of the patients in each kidney dialysis center were selected to be included in the study. The rationale for this choice was to make the percentage of patients included in each hospital representative of the percentage of patients undergoing hemodialysis in that hospital from the total number of patients served in all targeted centers.

Inclusion criteria involved adult patients aged more than 18 years old, undergoing hemodialysis for at least 6 months, having ability to read and sign the consent form, and not currently undergoing transplant procedures. While the exclusion criteria included patients who have been diagnosed with mental or cognitive disorders, have an altered level of consciousness, patients on PD, and who refused to participate in the study**.**

3.5. Study Instruments

The self-structured questionnaire used to conduct this study and consisted of four parts: sociodemographic data; Spiritual Well-being Scale; Psychological Well-being Scale; and WHOQOL-BREF.

Sociodemographic data: developed by the investigator based on the literature. This part included age, gender, duration of dialysis, educational level, income/month, and marital status.

Spiritual Well-being Scale (SWBS) was utilized to assess spiritual well-being. It was originally established by Paloutzian and Ellison (1982). This instrument consists of twenty questions of which ten odd-numbered items measure Religious Well-Being (RWB) and the other ten even-numbered questions measure Existential Well-Being (EWB). A 6-point Likert scale scores these tools. Scores are from 1 (strongly disagree)

to 6 (strongly agree). In addition, 7 items have been scored in reverse. The overall SWB score was computed by summing responses to all 20 items after reversing the negatively worded items. The total scores of SWBS ranging from 20 to 120 with higher scores representing greater well-being (Ellison, 1983). The overall score of SWB has been classified into three levels: high (100-120), moderate (41-99), and Low (20-40) (Alshraifeen et al., 2020; Ebrahimi et al., 2014). This tool is valid and reliable, where reliability coefficient using Chronbach's alpha was 0.82 (Ebrahimi et al., 2014; Ellison, 1983). The Arabic version of the SWBS was developed by Musa and Pevalin (2012) and has good construct validity with high internal consistency (Cronbach's α = 0.82-0.87) (Musa & Pevalin, 2012) was used. In this study, the Cronbach's alphas for the SWBS total score, RWBS, and EWBS are 0.74, 0.78, and 0.73, respectively. Thus, the spiritual well-being scale had an acceptable internal consistency reliability.

*Psychological Well-being Scale (PWBS)***,** in which the short form of PWBS was used to measure PWB (Ryff & Keyes, 1995). This scale consisted of 18 items that assesses six aspects of positive psychological functioning associated with wellbeing: Self-acceptance, Environmental Mastery, Positive Relations, Purpose in Life, Personal Growth, and Autonomy, with three items for each aspect. Responses ranged from strongly disagree (1) to strongly agree (6) on a Likert-scale. The overall psychological well-being score is computed by summing responses to all 18 items after reversing the negatively worded items. Reverse-scored items are worded in the opposite direction of what the scale is measuring. Consequently, the total scores of PWBS ranging from 18 to 108 with higher scores representing greater well-being. The total score of PWB

categorized into three levels as follows: 18–42 reflected low, 43–63 indicated average, and 64 and higher score reflected higher PWB (Kordan et al., 2019). This tool is valid and reliable, where a Cronbach's alpha ranged from 0.6 to 0.91 (Khanjani et al., 2014; Kordan et al., 2019; Ningrum & Kusumaningrum, 2022). The Arabic version of the PWBS was widely used and it has good construct validity with acceptable internal consistency (Cronbach's $\alpha = .71$) (Hamdan-Mansour et al., 2011). In this study, the PWBS had an acceptable internal consistency reliability, where Cronbach's alpha for the total score was 0.73. It was also ranging from 0.71 (Positive Relations with Others) to 0.82 (Autonomy).

WHOQOL-BREF was used to assess QOL and consists of 26 items rated on a 5-point Likert-type scale items. The WHOQOL-BREF was divided into four domains: physical (7 items), psychological (6 items), social relationships (3 items), and environmental (8 items), in addition to two items related to overall health (WHOQOL Group, 1998). Each item is scored using a 5-point Likert scale, with 1 being the lowest possible score (very dissatisfied/very poor) and 5 being the highest possible score (very satisfied/very good). The WHOQOL-BREF manual was used to rate each domain with scores ranging from 4 to 20, in which higher scores indicating better functional domain status (WHOQOL Group, 1998). The scoring system for QOL domains and scale was calculated according to the mean, in which mean < 12.00 indicated low QOL and ≥ 12.00 reflected high QOL. The questionnaire demonstrates good internal consistency (Cronbach's alpha ranged between 0.66 for domain 3 and 0.84 for domain 1) and discriminant validity (WHOQOL Group, 1998). Many of studies have measured the validity and reliability of the WHOQOL-BREF instrument and approved it as a suitable

tool to measure QOL (Kalfoss et al., 2021; Yermakhanov et al., 2021). The Arabic version of the WHOQOL-BREF tool was tested and was valid and reliable (Malibary et al., 2019). The Arabic version of WHOQOL-BREF showed strong internal consistency reliability and validity (Almarabheh et al., 2021). In this study, Cronbach's alpha coefficient for the full questionnaire was 0.89 and ranging from 0.75 (Social relations domain) to 0.85 (Environment domain).

3.6. Data collection procedures

After obtaining permissions from the required institutions, the investigator met the hospital managers and head nurses of the hemodialysis units in the target hospitals and with the nephrologists to clarify to them the purpose and significance of the study before data collection. All patients were undergoing hemodialysis as they came to dialysis units for regular dialysis sessions and eligible were included in this study. Then, the investigator met patients and clarified the purpose of the study and confidential issues, then informed consent was obtained from the participants. The researcher took into consideration the rights of the patients to choose the appropriate time for questionnaire filling because they may sense distress during dialysis sessions. The questionnaires were distributed to the participants' before the dialysis session and collected when patients complete it.

3.7. Data analysis

The Statistical Package for Social Sciences (SPSS) version 26.0 software was used to analyze the collected data. Graphical displays (e.g., Q-Q plots) and normality tests (e.g., Shapiro-Wilk) were used to assess if quantitative variables were normally distributed. Descriptive analysis including the means, and standard deviations were used to analyze quantitative variables, while categorical variables were described in

percentages and frequencies. Inferential statistics were used to explore possible relationships and differences between the study variables. Requirements for parametric tests were satisfied, so one-way analysis of variance (ANOVA) and independent-samples T tests were used to examine whether significant differences in the dependent variables existed between groups of the sociodemographic variables. To follow up significant differences in the levels of dependent variables, Fisher's least significant difference (LSD) test for pairwise comparisons was performed. Correlation analysis was used to examine associations between dependent variable (i.e., QOL) and other independent variables. To determine the significant predictors of the dependent variable (i.e., QOL), linear multivariate regression was performed. A p-value ≤ 0.05 was considered statistically significant.

3.9. Ethical considerations

The study followed ethical guidelines and obtained necessary approvals and permissions. The study received approval from IRB of American Arab University, as well as consideration for dignity, integrity, and human rights. Permission was also obtained from the Palestinian Ministry of Health and the administrations of the target hospitals. Permission letters were obtained from the officials of An- Najah National University Teaching Hospital and the Palestinian Ministry of Health hospitals to conduct this study. Patients were given a consent form to participate in the study, which adequately informed them about the goals, methods, and possible conflict of interest. Patients were also informed about their right to refuse and withdraw from the study at any time without any consequences. The study ensured that patient information was managed under complete confidentiality and that no personal identifiers or patient

names were collected. Overall, it seems that the study followed ethical guidelines and took necessary measures to protect patient privacy and rights.

3.9. Summary

The chapter detailed the strategies and processes employed to achieve the study's objectives. The research design, the target participants and sample selection, sample size calculation, the tools used for data collection, the methods of data gathering and analysis, and the assessment of the instruments' validity and reliability have all been detailed in this chapter. As previously stated, the descriptive correlational research design with quantitative approach was deemed appropriate because the research focused on investigating the PWB, SWB, and QOL relationships among hemodialysis patients. Ethical standards were fully observed. Data analysis procedures were done considering their underlying statistical assumptions. For inferential statistics, levels of significance were set at 0.05 alpha levels.

CHAPTER FOUR

RESULTS

This chapter presents findings from data analysis. It includes socio-demographic characteristics of participant, and it answers the study questions.

4.1. Sociodemographic Characteristics of the Participants

Table 1 shows the general characteristics of the sample. The findings revealed that 55.0% of the respondents were males, about two-thirds (67.3%) were married, and 27.4% had a university degree. The mean age was 51.6 (SD ± 15.3) years. The mean monthly income was 2190.6 (SD ± 2062.5) ILS. The analysis also revealed that the mean duration of the disease was 5.1 (SD ± 4.2) years.

Table 1: Sociodemographic characteristics of the sample (N = 413)

Characteristic	Categories	n (%)	mean (± SD)
Gender	Male	227 (55.0)	
	Female	186 (45.0)	
Marital status	Single	74 (17.9)	
	Married	278 (67.3)	
	Divorced/widowed	61 (14.8)	
Education	Primary/ preparatory	157 (38.0)	
	High school	143 (34.6)	
	College/university	113 (27.4)	
Age (years)	< 35	70 (16.9)	51.6 (± 15.3)
	35 – 44.9	66 (16.0)	
	45 – 54.9	79 (19.1)	
	55 – 64.9	118 (28.6)	
	≥ 65	80 (19.4)	
Monthly income (ILS)	< 2000	198 (47.9)	2190.6 (± 2062.5)
	2000 – 2999	101 (24.5)	
	3000 – 3999	54 (13.1)	
	≥ 4000	60 (14.5)	
Duration of disease (years)	< 2	75 (18.2)	5.1 (± 4.2)
	2 – 5.9	195 (47.2)	
	6 – 9.9	93 (22.5)	

≥ 10	50 (12.1)	
n: number; % percentage; SD: Standard Deviation		

4.2. Research Question One:

What are the levels of spiritual well-being, psychological well-being, and quality of life for patients undergoing hemodialysis at the West Bank?

As shown in Table 2, the analysis revealed that the mean score of the overall PWB was (69.2 ± 8.6) out of 108 indicating that patients had a high level of PWB (i.e., score 64 or higher). The highest mean score was for autonomy (the mean was 12.4 ± 2.3) and the lowest for the purpose in life (the mean was 10.4 ± 2.6).

Concerning SWB, the mean score on the overall mean score of SWB was (90.1 ± 13.0) out of 120 indicating that patients had a moderate level (i.e., mean score from 41 to 99). Furthermore, patients had a high level of religious well-being, were the mean score was (50.0 ± 7.7) out of 60, and a moderate level of existential well-being, were, the mean score was (40.1 ± 7.6) out of 60.

Additionally, the mean score on the overall QOL was (11.8 ± 2.1) out of 20, indicating that patients had a relatively low level of quality of life (mean score is less than 12). Furthermore, patients had a relatively low level in the physical (the mean was 11.0 ± 2.9 out of 20) and the environmental (mean score was 11.8 ± 2.6 out of 20) domains whereas they had a high level of psychological (mean score was 12.2 ± 2.5 out of 20) and the social relationships (mean score was 13.1 ± 3.4 out of 20) domains.

Table 2: Levels of PWB, SWP, and QOL among participants (N = 413)

Scale/Domain	No. of items	Mean	SD	Possible scores range
PWB				
Positive Relations with Others	3	10.9	2.5	3 – 18
Self-Acceptance	3	12.0	2.8	3 – 18
Autonomy	3	12.4	2.3	3 – 18
Personal Growth	3	12.0	2.5	3 – 18
Environmental Mastery	3	11.6	2.6	3 – 18
Purpose in Life	3	10.4	2.6	3 – 18
Overall	**18**	**69.2**	**8.6**	**18 – 108**
SWB				
RWB	10	50.0	7.7	10 – 60
EWB	10	40.1	7.6	10 – 60
Overall	**20**	**90.1**	**13.0**	**20 – 120**
QOL				
Physical health	7	11.0	2.9	4 – 20
Psychological health	6	12.2	2.5	4 – 20
Social relationships	3	13.1	3.4	4 – 20
Environmental	8	11.8	2.6	4 – 20
Overall	**24**	**11.8**	**2.1**	**4 – 20**

SD: Standard deviation; PWB: Psychological well-being; SWB: Spiritual well-being; RWB: Religious well-being; EWB: Existential well-being; QOL: Quality of life

4.3. Research Question Two:

Are there any differences in the levels of spiritual well-being, psychological well-being, and quality of life according to sociodemographic characteristics for patients undergoing hemodialysis at the West Bank?

Independent-sample T-test and one-way ANOVA were employed to explore if there were significant differences between the levels of perception of PWB, SWB, and QOL for hemodialysis patients according to their sociodemographic characteristics. The findings, as summarized in Table 3, shed light on several significant observations. Firstly, there were significant differences in the levels of PWBS between the groups of demographic variables: marital status, education, income, and duration of disease (i.e., *p*-value < 0.05). Secondly, the study revealed significant variations in the levels of SWBS across distinct demographic categories, including marital status, education, and age. These disparities were statistically significant, with p-values falling below the 0.05 threshold.Lastly, the investigation yielded significant disparities in QOL based on demographic variables, namely marital status, education, age, and income. These distinctions in QOL were statistically significant, as demonstrated by p-values less than 0.05.

In order to analyze the pattern of significant differences in the means of PWBS, SWBS, and QOL levels according to significant sociodemographic variables groups, the LSD test for pairwise comparisons was performed. Our findings are demonstrated in Table 4. The analysis of significant pairs showed that: Married subjects' PWBS scores were higher than divorced/widowed. Higher education levels were associated with higher levels of PWBS. Especially, respondents with a university education had higher PWBS levels than those who had primary/high school education. Higher income levels were associated with higher levels of PWBS. That is, participants who earned 3000 or more ILS had higher PWBS levels than those who earned less 2000 ILS. Levels of PWBS were negatively related to the duration of the disease. Participants

who recently suffered from the disease (period less than 2 years) had the highest levels of PWBS.

Married Palestinian hemodialysis patients' SWBS scores were higher than divorced/widowed. Higher education levels were associated with higher levels of SWBS (i.e., university-educated respondents had the highest scores). Generally, older participants had higher levels of SWBS than others except surprisingly those in the age category (55 – 64.9) who had the lowest scores.

Divorced/widowed patients had the lowest QOL levels. Higher education levels were associated with higher levels of QOL, university/high school-educated subjects had highest scores. Overall, young participants (i.e., age < 35 years) had the highest Levels of QOL. Generally, higher income levels (i.e., income ≥ 3000) were associated with higher levels of QOL.

Table 3: Testing for significant differences in the levels of PWB, SWP, and QOL scale according to sociodemographic characteristics among participants (N = 413)

		PWBS		SWBS		QOL	
Characteristic		**Mean (SD)**	***p*-value**	**Mean (SD)**	***p*-value**	**Mean (SD)**	***p*-value**
Gender	Male	69.7 (8.7)	0.253	90.0 (13.6)	0.827	11.9 (2.2)	0.800
	Female	68.7 (8.5)		90.3 (12.3)		11.8 (2.0)	
Marital status	Single	68.6 (9.3)	0.020*	89.3 (12.7)	0.049*	12.1 (2.0)	< 0.001*
	Married	70.0 (8.6)		91.1 (13.4)		12.0 (2.1)	
	Divorced/widowed	66.7 (7.4)		86.7 (10.7)		11.8 (2.1)	
Education	Primary/ preparatory	67.9 (8.7)	0.005*	89.7 (13.0)	0.013*	11.3 (1.9)	< 0.001*
		69.0 (8.4)		88.3 (12.6)		11.9 (2.2)	
	High School	71.3 (8.5)		93.0 (13.1)		12.5 (2.1)	
	College/university						
Age	< 35	69.9 (8.6)	0.151	87.1 (12.7)	0.008*	12.5 (2.0)	0.049*
	35 – 44.9	70.7 (9.6)		92.9 (14.0)		11.8 (1.8)	
	45 – 54.9	69.0 (8.1)		91.9 (10.8)		11.9 (2.3)	
	55 – 64.9	67.7 (7.7)		87.8 (13.9)		11.6 (2.0)	
	≥ 65	69.9 (9.5)		92.0 (12.2)		11.8 (2.1)	
Income	< 2000	68.3 (8.7)	0.027*	90.1 (13.1)	0.983	11.5 (2.1)	0.001*
	2000 – 2999	68.8 (8.1)		90.5 (12.1)		11.9 (2.0)	
	3000 – 3999	71.2 (8.3)		89.8 (13.2)		12.2 (1.7)	
	≥ 4000	71.4 (9.1)		89.8 (14.4)		11.8 (2.1)	
Duration	< 2	72.4 (9.9)	0.004*	92.8 (12.9)	0.163	12.2 (1.9)	0.116
	2 – 5.9	69.0 (8.1)		89.3 (13.2)		11.9 (2.3)	
	6 – 9.9	68.0 (8.1)		88.9 (12.6)		11.7 (2.0)	
	≥ 10	67.9 (8.7)		91.4 (12.8)		11.8 (2.1)	

SD: Standard deviation; PWBS: Psychological well-being scale; SWBS: Spiritual well-being; QOL: Quality of life; (*): Significant differences using independent-samples T test/one-way ANOVA (i.e., *p*-value < 0.05)

Table 4: LSD multiple comparisons test for the levels of PWBS, SWBS, and QOL scale according to sociodemographic characteristics among participants; only significant pairs are reported (N = 413)

Characteristic	PWBS			
	Significant pairs		95% C.I for mean difference (I -J)	*p*-value
	Category (I)	Category (J)		
Marital status	Married	Divorced/widowed	(0.9, 5.7)	0.007*
Education	University University	Primary/Preparatory High school	(1.3, 5.5) (0.2, 4.4)	0.001* 0.031*
Income (ILS)	3000 – 3999 ≥ 4000	< 2000 < 2000	(0.4, 5.5) (0.6, 5.5)	0.026* 0.016*
Duration (years)	< 2 < 2 < 2	2 – 5.9 6 – 9.9 ≥ 10	(1.1, 5.7) (1.8, 7.0) (1.4, 7.5)	0.003* 0.001* 0.004*
Characteristic	**SWBS**			
	Significant pairs		**95% C.I for mean difference (I -J)**	***p*-value**
	Category (I)	**Category (J)**		
Marital status	Married	Divorced/widowed	(0.8, 8.0)	0.018*
Education	University University	Primary/Preparatory High school	(0.2, 6.5) (1.5, 7.9)	0.035* 0.004*
Age (years)	≥ 65 ≥ 65 45 – 54.9 45 – 54.9 35 – 44.9 35 – 44.9	< 35 55 – 64.9 < 35 55 – 64.9 < 35 55 – 64.9	(0.7, 9.0) (0.5, 7.8) (0.6, 8.9) (0.4, 7.7) (1.5, 10.3) (1.2, 9.0)	0.021* 0.026* 0.024* 0.030* 0.009* 0.010*
Characteristic	**QOL**			
	Significant pairs		**95% C.I for mean difference (I -J)**	***p*-value**
	Category (I)	**Category (J)**		
Marital status	Single Married	Divorced/widowed Divorced/widowed	(0.6, 2.0) (0.6, 1.8)	< 0.001* < 0.001*
Education	University University	Primary/Preparatory High school	(0.7, 1.7) (0.1, 1.1)	< 0.001* 0.028*
Age	< 35 < 35	55 – 64.9 ≥ 65	(0.3, 1.5) (0.3, 1.6)	0.006* 0.006*
Income	3000 – 3999 ≥ 4000 ≥ 4000	< 2000 < 2000 2000 - 2999	(0.0, 1.3) (0.5, 1.7) (0.1, 1.4)	0.036* < 0.001* 0.025*

LSD: Fisher's Least Significant Difference; PWBS: Psychological well-being scale; SWBS: Spiritual well-being; QOL: Quality of life;
(*): Significant differences using LSD post hoc test (i.e., *p*-value < 0.05)

4.4 Research Question Three:

What is the relationship between spiritual well-being, psychological well-being, sociodemographic characteristics, and quality of life for patients undergoing hemodialysis?

Table 5 presents the bivariate correlations between the dependent variable (i.e., QOL) and the independent variables: PWBS, SWBS, and sociodemographic characteristics among participants. The analysis showed that: The PWBS and SWBS had statistically significant moderate positive correlations with the QOL. The income (respectively, the age) had statistically significant weak positive (respectively, negative) relationships with the QOL. Both marital status and education had statistically significant weak associations with the QOL, eta value between 0.2 and 0.4. By squaring the eta value, 4.4% (respectively, 5.5%) of the total variation in the QOL can be explained by marital status (respectively, education). Both gender and duration were not significantly associated with the QOL.

Table 5: Correlations between QOL and PWB, SWB, and sociodemographic variables for hemodialysis patients (N = 413)

Independent variables	***R***	***p*-value**	***Measure type***
PWBS	0.446**	< 0.001	Pearson
SWBS	0.398**	< 0.001	Pearson
Age	- 0.147**	0.003	Pearson
Income	0.165**	0.001	Pearson
Duration	- 0.081	0.099	Pearson
Gender (Male)	0.013	0.800	Point-biserial
Marital status	0.211**	< 0.001	Eta
Education	0.235**	< 0.001	Eta

PWBS: Psychological well-being scale; SWBS: Spiritual well-being scale;
R: Correlation coefficient;
(*): Association is significant at 0.05 level of significant (i.e., *p*-value < 0.05);
(**): Association is significant at 0.01 level of significant (i.e., *p*-value < 0.01)

4.5. Research Question Four:

What are the predictors of QOL for patients undergoing hemodialysis at the West Bank?

Multiple linear regression was performed to determine the significant predictors of the QOL among the patients. The estimated model is summarized in Table 6. The residuals were approximately normal with constant variance, see Fig. 1 and Fig. 2. All independent variables explained about 30% of the total variation in QOL scores. Furthermore, the findings revealed the following conclusions: PWBS and SWBS had small positive statistically significant effects on the QOL scores. Single/Married participants had significantly higher scores on the QOL scale than the divorced/widowed participants. High School/University level participants had significantly higher scores on the QOL scale than the primary level participants. Age, income, duration, and gender had no significant effects on the QOL scores.

Table 6: Predictors of QOL among participants using multiple linear regression model (N = 413)

Independent Variables	*B*	*p*-value	95% confidence interval for B	
			Lower bound	Upper bound
PWBS	0.07	< 0.001**	0.044	0.091
SWBS	0.04	< 0.001**	0.026	0.057
Age	-0.01	0.129	-0.024	0.003
Income	8.7×10^{-5}	0.068	< 0.001	< 0.001
Duration	- 0.03	0.240	-0.066	0.017
Male	-0.13	0.497	-0.490	0.234
Single[a]	0.77	0.026*	0.093	1.439
Married[a]	0.60	0.025*	0.078	1.131
High School[b]	0.44	0.045*	0.010	0.864
University[b]	0.58	0.018*	0.100	1.058
Model summary	**R^2 = 0.303, Adjusted R^2 = 0.286, and F = 17.510 (p-value < 0.001)**			

SWBS: Psychological well-being scale; SWBS: Spiritual well-being scale; B: Unstandardized regression coefficient; R^2: Multiple linear determination coefficient; (a): Reference category: divorced/widowed; (b): Reference category: Primary;

(*): Variable is significant at 0.05 level of significant (i.e., p-value < 0.05);

(**): Variable is significant at 0.01 level of significant (i.e., p-value < 0.01)

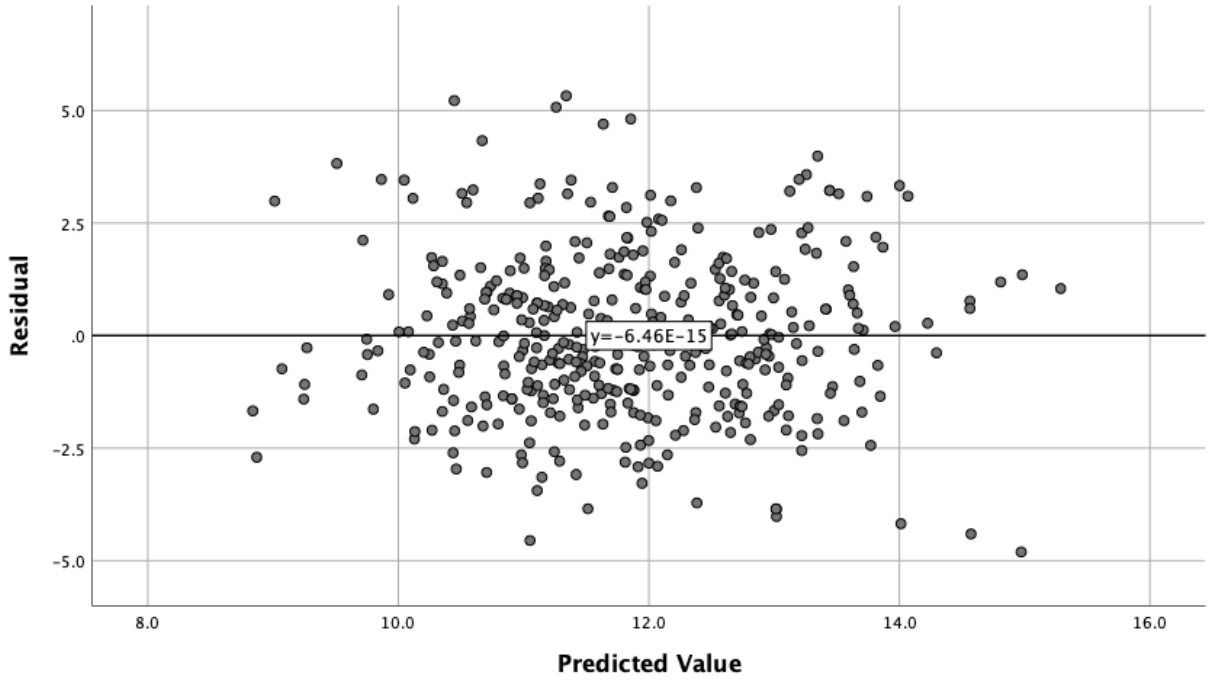

Fig. 1. Simple scatter plot of the residuals against the predicted values

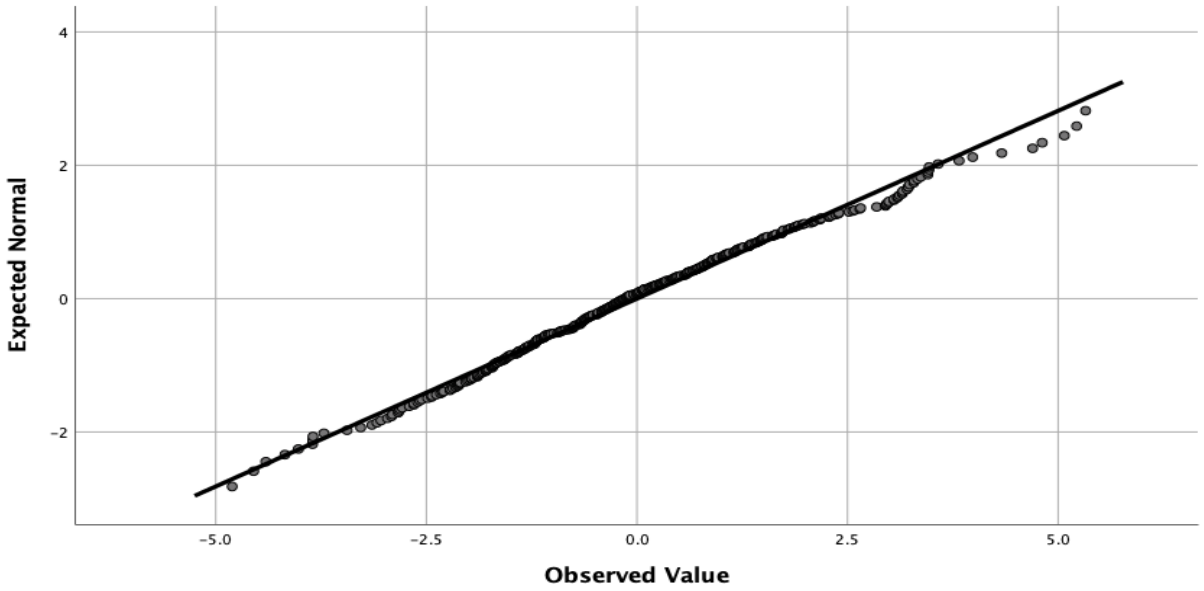

Fig. 2. Normal Q-Q plot of residuals

CHAPTER FIVE

DISCUSSION

This chapter includes discussion of the study's findings based on the research questions.

5.1. Discussion of the Study Findings

5.1.1. Levels of SWB for hemodialysis patients

Spirituality is one of the important mechanisms that aids in the adaptation to disease and stressful conditions (Santos et al., 2017). SWB is one of four dimensions of health (Pilger et al., 2017). It has two subscales; the first one is RWB, which denotes the satisfaction that comes from communication with a superior power (God). Whereas EWB refers to the effort of a person to discover and gain the meaning and purpose of human life (Ramezankhani et al., 2013). SWB has direct and major effects on personal health and is essential to human well-being (Ahmadifaraz et al., 2015).

The level of SWB among Palestinian patients receiving hemodialysis was measured by using a valid and reliable scale consisting of 2 subscales EWBS and RWBS. The total mean score of SWB in patients with chronic diseases was 86.65 (P 0.001, 95%, CI: 80.34-92.96), representing a moderate level of SWB (Tirgari et al., 2022). In the current study, data revealed that the SWB level was moderate. This finding reflects that of another study done using the same instrument aimed at investigating the relationship between SWB and QOL among hemodialysis patients (Ebrahimi et al., 2014). This study is consistent with that of Nia et al. (2012) study . Similarly, Musa et al. (2022) Musa et al. (2018) examined the influence of the SWB among Jordanians hemodialysis patients using similar tool. Both studies reported that hemodialysis patients had on average moderate SWB levels. Such findings could be

interpreted that patients receiving hemodialysis experienced a variety of challenges, including food and fluid restrictions, job loss, frequent hospitalization, increased dependency, troubled sleep, exhaustion, fear of the future, a change in lifestyle, and loss of power to maintain physical activities (Mafi et al., 2019; Mollaoğlu & Başer, 2021; Qaddumi et al., 2020). SWB is influenced by a combination of factors such as physical, emotional, and social. Further, the mean age of participants (51.6 ± 15.3) years, it has been also reported that spirituality increases with age and positively influences well-being among the elders (Musa et al., 2018; Saleem & Sajid, 2015; Zimmer et al., 2016).

Moreover, the analysis also showed that participating patients had a high level of RWB (the mean score was 50.0 ± 7.7 out of 60) and a moderate level of EWB (the mean score was 40.1 ± 7.6 out of 60). which is consistent with the results reported by Pilger et al. (2017) moderate SWB and EWB, and high levels of RWB. Silva et al. (2009) conducted a research to measure the SWB of chronic obstructive pulmonary disease patients which found the same means as those in the current study. Their data showed moderate levels of total SWB, with a mean score of 94.8, and higher scores were reported in the RWB (the mean was 51.50 out of 60) than EWB (the mean was 43.37 out of 60). These results indicated that patients had a positive understanding of their relationship with God. Despite the tension and limits forced by ESRD and its treatment journey, patients reported a sense of well-being correlated to their beliefs and moderate levels of life purpose and meaning. On the other hand, Musavi Ghahfarokhi et al. (2020) reports moderate level at SWB, RWB, and EWB. In a Canadian study of hemodialysis patients, the mean scores for EWB and RWB were lower, 42.9 and 38.8, respectively (Davison & Jhangri, 2010). The variance in the results could be attributed

to the differences in the cultural, religious backgrounds, and ethnic backgrounds of the participants.

5.1.3 The relationship between SWB and sociodemographic characteristics for patients undergoing hemodialysis at the West Bank

Married patients in the current study also reported higher levels of SWBS/EWBS, which is consistent with a previous study conducted by Yaghoobzadeh et al. (2018) The study showed that SWB is related to marital status. It could be argued that, in married people, tend to have high levels of SWB as they have higher levels of hope. Married people may share their aims and upcoming goals with their partners, which may encourage them to be more optimistic about achieving their objectives(Cheung, 2016)

Regarding the educational level. The current study revealed that higher education levels were associated significantly with higher levels of SWB. This finding adds to the previously reported results derived from the other literature (Fradelos, 2021). it is widely accepted that during times of crisis, such as suffering from chronic illness, life-threatening conditions, or end stage disease, people tend to be more spiritual in their attempts to find meaning in their disease (Fradelos, 2021; Raja Lexshimi et al., 2014). In addition, patients with higher education levels have better chance to gain a job or may be retired from work and receive a pension.

In this study, it was observed that older patients reported higher scores of SWB, RWB, and moderate EWB. These findings showed that elderly participants demonstrated stronger religiosity than younger ones. Studies have consistently pointed out that as patients age their inclination in the direction of religious beliefs inclines to increase (Cruz et al., 2017). That is in line with previous investigations, it has been also

stated that spirituality grows with age and positively influences well-being among the elders (Cruz et al., 2016; Moreira-Almeida et al., 2010; Zimmer et al., 2016). Older patients tend to participate more frequently in religious activities, often regarding these activities as their predominant social engagements. Notably, they consider religion as a significant source of support, (Kaplan & Berkman, 2011). Contradictious to result that reported by Alshraifeen et al. (2020) older age was associated with higher depression and lower spiritual level.

5.1.4.. Levels of PWB for hemodialysis patients

PWB involves humans determined for happiness through personal growth and finding purpose in their lives. It involves feeling positive emotions like satisfaction, happiness, self-assurance, and interest. This concept goes beyond lake stress absence and the absence of other psychological problems(Ryff & Keyes, 1995).

PWB among Palestinian patients receiving hemodialysis was measured by using a valid and reliable instrument Ryff's 18-item (Ryff, 1989). The study's findings revealed that the PWB of hemodialysis patients was high, as their mean scores were higher than the average score on the scale (69.2 out of 108). This result corresponds to Aini and Wahyu (2020b) proved in their study among hemodialysis patients. These findings are also consistent with the results of Asaah (2020) in their study to measure the influence of religiosity on PWB of patients receiving hemodialysis. In addition, contravene with other literatures showed moderate level of PWB (Hamdan-Mansour et al., 2015; Rezaei et al., 2018).

Most hemodialysis patients were between moderate and high PWB thresholds. Results from the various domains also revealed high levels of PWB across five components with mean scores above the average score on each component, except the

mean score in purpose in life were moderate. It could be argued that hemodialysis patients when granted the appropriate environment tend to develop a sense of personal control over their lives by actively making decisions that influence them (autonomy). They also displayed a sense of control and mastery over their environmental problems, as well as positive adaptation to changes inherent in their ecological system (environmental mastery). Despite their poor physical condition, they recognized and accepted many elements of themselves, including both good and negative attributes, and felt happy about their prior lives (self-acceptance). Patients reported they had warm, pleasant, and trustworthy connections with others, they cared about the well-being of others, and they recognized the reciprocity of human interactions (positive relationships). The findings also indicated that patients felt a need for ongoing personal development, progress, and expansion in the face of new learning opportunities in life. The findings also revealed that patients felt oriented toward their life goals, that there were meanings to their present and past lives, and that they had beliefs, ambitions, and aspirations that provided (life purpose) (Ryff, 1989).

The highest-scoring PWB dimension in this study was autonomy. This is due to the longer period of hemodialysis therapy that supplied them with actual information about their disease. This requires the patients to better understand their food restrictions, prescription medications, and how to avoid infections and complications. These results are consistent with that of Helali et al. (2022) who evaluated the association between locus of control and PWB among hemodialysis patients. Their results presented that the highest proportion of patients had a high level of autonomy. This finding controverts a result of previous research to assess the perceived autonomy among CKD stage four patients who report poor autonomy(Jansen et al., 2010).

The lowest scoring PWB dimension in this study was purpose in life, which considered a moderate level. This could be attributed to stepping into a new difficult position in life inhibiting the emergence of new options, allowing life's purpose to change. Furthermore, hemodialysis therapy causes loss of independence, reliance on the caregiver, interruption in social life, and financial difficulties. Furthermore, the hemodialysis schedule disrupts the patient's holidays, activities, and capacity to enjoy life.

5.1.5 The relationship between PWB and sociodemographic characteristics for patients undergoing hemodialysis at the West Bank

Regarding marital status, married patients reported greater levels of psychological well-being than widowed or divorced. Similarly, in a study done by Momtaz et al. (2011), they explain their findings that Marriage, especially in traditional cultures, is seen as a key source of social support for couples, resulting in greater levels of PWB among married individuals. On addition, Marriage tend to improves PWB by providing a source of self-esteem. Furthermore, married patients are more likely to benefit from a supportive relationship and experience less loneliness. Marriage, too, gives stability and a network of support, which may assist couples in dealing with life's stresses (Badahdah et al., 2020). Unmarried people have worse psychological well-being than married people because they lack the social and financial advantages that married people enjoy (Schulz et al., 2006).

Higher education levels were associated with higher levels of PWBS. These results agree with the result reported in a previous study aimed to assess PWB among elderly people which found there is a positive correlation between education degree and PWB (Momtaz et al., 2011). This could be attributed to higher education level.

University degrees develop critical thinking; provide patients with the opportunity to obtain a job that will ensure financial security. Moreover, the educational level tends to enhance patients social relationships, and self-satisfaction, improving PWB.

In addition, patients' income appears to play an important role in PWB among patients. Higher-income levels were associated with higher levels of PWBS. This result is consistent with previous literature which found that income is a significant QOL and PWB (Kaplan et al., 2008; Timkova et al., 2021). Patients with higher income levels can meet their basic requirements such as food, shelter, and health care, resulting in a better degree of PWB. Levels of PWB were negatively related to the duration of the disease. Participants who recently suffered from the disease (period less than 2 years) had the highest levels of PWBS**.** Ongoing hemodialysis and complications associated with ESRD can have a significant impact on their physical and psychological. Factors such as the burden of treatment, and limitation of physical activity. Moreover, the long duration of hemodialysis means that patients are less hopeful regarding kidney transplantation. Such reason may result in uncertainty about the future and can contribute to lower PWB. However, no attention has been paid in the existing literature for the duration of disease and PWB.

5.1.6 Levels of QOL for hemodialysis patients

Patients' QOL is negatively impacted by ESRD. With negative consequences seen in the social, environmental, physical, and psychological aspects (Tran et al., 2022). The QOL of these hemodialysis patients must be appropriately taken into account given the severity of the illness and its protracted duration. QOL is becoming a crucial outcome indicator for evaluating hemodialysis patients, monitor their development, and evaluate the effectiveness of their disease management (Ravindran et

al., 2020). Patients in this study were found to have poor QOL (11.8 ± 2.1) out of 20. These results confirm that this validates prior results that patients with ESRD have a much lower QOL than the general population of healthy people(Musa et al., 2022; Sathvik et al., 2008). The same finding reported by a recent study conducted in Palestine, which aimed to finding the correlation between chronic pain and QOL among hemodialysis patients (Ishtawi et al., 2023). This could be attributed to ESRD as a chronic disease in nature that limits physical activity, causes chronic pain, is time-consuming many times weekly at dialysis centers, loss of ability to work leads to financial insufficiency these factors and others will lead to decreased QOL (Ravindran et al., 2020).

Four domains influence a patient's QOL. In this study result present patients had the lowest score mean in the physical health domain. In a comparable research conducted in the West Bank of Palestine using the EQ-5D instrument, QOL scores in the physical domain were the lowest (Zyoud et al., 2016). It corresponds with the result reported in a study conducted among hemodialysis patients in Indonesia (Pompey et al., 2019). The poor mean score for the physical health aspect might be due to symptoms associated with ESRD. Such as limitations in activity and independence. Participants in this study reported low scores in the environment domain. In line with previous literature (Anees et al., 2011; Ranabhat et al., 2020). Interesting to note that patients did not have enough income, and they spent 3 to 4 hours two to three times weekly receiving hemodialysis therapy. So they didn't have enough time for vacation activities, little chances for new information, gain aid, activities, and financial resources resulted in low scores in the environmental domain (Buni, 2023).

The highest score was found in social relationships (the mean score was 13.1 ± 3.4 out of 20). This result is in line with findings in a similar study using the same tool (NC & Sivakumar, 2023). The findings of this study are consistent with the findings of Alshraifeen et al. (2020), who observed that hemodialysis patients score satisfactorily in their social relationships. This finding reflects how family and social support achieve patients' social needs (Buni, 2023). Patients in Palestine belong to extended families and share their joys and sorrows. This unlimited support helps to improve social relations. On the other hand, the majority of the participants in this study were married and transferred their feelings to people close to them, indicating that social support affects the QOL. Regarding psychological health, patients report higher scores (mean score was 12.2 ± 2.5 out of 20), in line with previous literature (Pompey et al., 2019). Patients with chronic diseases such as ESRD can turn to psychological coping, seeking an understanding of solutions to their disease's symptoms.

5.1.7 The relationship between QOL and sociodemographic characteristics for patients undergoing hemodialysis at the West Bank

Marital status is found to be one of predictors for QOL. Single/Married participants significantly achieved higher scores on the QOL scale than the divorced/widowed participants. This finding is consistent with other research, which showed that patients who were bereaved or divorced scored worse in QOL than those who were married or unmarried (Abdulqader & Ali, 2023; Iqbal et al., 2020). Because they have lost most of their physical capacities and are emotionally exhausted, hemodialysis patients require additional social and psychological assistance, especially because it is more challenging for anybody living alone with this illness. Another study conducted in Bahrain showed that marital status did not affect statistically the total

scores of the QOL. they explain the result due to strong family relations, even widow and divorced usually acquire satisfactory social and economic support from their relatives that assist them to deal with their condition (El-Habashi et al., 2020).

Regarding educational level, it was also found that there were statistically significant differences in QOL according to educational level for HD patients. Generally, higher education levels were predicted to have better levels of QOL parameters. University-educated patients had the highest scores in terms of overall QOL, satisfaction with health, and physical domains. On the other hand, University/high school-educated subjects had higher scores than those who had primary education in the domains of psychological and environmental. This result is incompatible with a Jordanian study conducted by Shdaifat and Manaf (2012) It was found that there was no relationship between level of education and QOL. While consistent with another study showed that hemodialysis patients who had a high educational degree had a better QOL(Gerasimoula et al., 2015). Maybe education allows a deep understanding of the disease and improves compliance with the treatment plan (García-Llana et al., 2013). Another clarification is that advanced education may reflect better income and consequently the ability to have enough money for treatment.

Age seems to negatively affect physical health. Young participants had the highest score in the physical domain. Many studies have confirmed such finding. For instance, Zyoud et al. (2016) for example, examined the variables influencing patients' QOL while living with hemodialysis in Palestine. The findings of this study revealed that age was one of the most significant sociodemographic characteristics connected with hemodialysis related QOL. While older had the lowest score these findings corresponded with the finding of many studies (Ravindran et al., 2020; Rehman et al.,

2020; Theofilou, 2012). This decrease in scores with age could attributed by the fact that as people age, their physical health, including their energy level, work capability, and sleep quality, deteriorates. Additionally, older patients had worse overall health and more comorbid diseases than younger ones (Naseef et al., 2023).

In the current study, higher income was associated with better levels of overall QOL, and satisfaction with health, psychological, and environmental domains. Joshi et al. (2017) reported that patients with higher income are associated with better three domains of the psychological domain, environmental domain, and overall perception of general health. In fact, people with greater incomes can easily afford better care, and meet their demands. Financial stability should also result in higher self-esteem, a sense of fulfillment, and less fear about the future, all of which improve QOL. This may also be the reason for a positive correlation between income and psychological and environmental domains of QOL in this study. The same pattern of QOL and its relative to income were also reported in other studies (Lemos et al., 2015; Ogutmen et al., 2006).

5.1.8 The relationship between SWB, PWB, and QOL for patients undergoing hemodialysis.

The findings of the current study revealed a moderate level of SWB and a high level of PWB. The current results showed Palestinian hemodialysis patients suffering from poor QOL. This is consistent with previous studies with samples from different nations, beliefs, and religious circumstances. Many studies conducted in Arab Muslim countries (Lazarus, 2019; Nabolsi et al., 2015) stated that hemodialysis patients have a low level of QOL. Pearson Correlation analysis between QOL with SWB, and

PWB had statistically significant moderate positive since (r= 0.398, p <0.001) (r = 0.446, p <0.001), respectively. A systematic review of 311 studies conducted between January 1980 and December 2018, with a total of 9,265 hemodialysis patients, showed a positive relationship between spirituality and hemodialysis patients' QOL (Burlacu et al., 2019). Additionally, another study conducted by Ebrahimi et al. (2014) in Iran country among Muslim hemodialysis patients, reported low to moderate positive correlation coefficients between SWB and several dimensions of QOL.

This study found that SWB is one of the predictors of the QOL level according to multiple linear regression analysis shows. SWBS had small positive statistically significant effects on the QOL scores. Spirituality may be used as a coping method by the patient, particularly as a source of fulfillment, serenity, strength, and support, to assist overcome the negative consequences of physical and psychological complication connected with their disease and treatment (Musa et al., 2018). Many Muslims find that their relationship with God, spiritual principles, and formal ceremonies provide them with a sense of relaxation and well-being at during their suffering and disease(Musa et al., 2022). Even in extreme suffering, spiritual and religious beliefs can bring purpose, hope, and solace. Furthermore, spirituality can aid in the preservation and enhancement of QOL(Pilger et al., 2017).

Multiple linear regression analysis showed PWB is one of the predictors for QOL. PWBS had small positive statistically significant effects on the QOL scores. Meaning that patients who have higher levels of PWB incline to have a higher QOL. This result is consistent with previous research which aimed to assess the relationship between PWB and QOL among physically disabled and normal employees reported a significantly positive correlation between them (Kanwal & Mustafa, 2016). Another

study conducted by Ma et al. (2021) aimed to examine the correlation between mental health status and QOL) in hemodialysis patients, It found poor psychological states were more significantly associated with decreased QOL. A growing body of evidence suggests a link between increased PWB and improved overall health and QOL (Cohen et al., 2016; Feller et al., 2018). An interaction of factors characterizes the relationship between PWB and QOL. Patients with higher PWB frequently have more positive emotions, better coping abilities, and a stronger sense of purpose in life, all of which contribute to a higher QOL (Tang et al., 2019). Furthermore, increased PWB is linked to improved physical health outcomes and healthier behaviors, increasing their total well-being. Furthermore, PWB increases the quality of social interactions, providing a supporting system that improves overall QOL(Perry et al., 2015).

5.2 Conclusion

This study was conducted to assess the SWB, PWB, and QOL among patients undergoing hemodialysis at the West Bank. Using a cross-sectional, descriptive correlational design at multi-hemodialysis centers, 413 participants were recruited for this study following the convenience-sampling method. Results can infer that patients exhibit a moderate level of SWB and a high level of PWB. This implies that many patients use spiritual and psychological resources to cope with the consequences of their disease. As part of holistic care, healthcare practitioners must identify and support various elements of patients' well-being.

The current study indicates that the overall QOL of hemodialysis patients is poor. The study emphasizes the significant burden and challenges that these patients encounter in their everyday lives, including their physical health and mental well-being. Improving QOL should be a top priority for healthcare practitioners and stakeholders.

Marital status, educational level, SWB, and PWB were identified as significant predictors of QOL. These characteristics highlight the necessity of addressing hemodialysis patients' social, psychological, educational, and spiritual requirements in order to improve their overall QOL. Healthcare practitioners and authorities in Palestine should explore tailoring treatments and support services for hemodialysis patients. This study, for example, provides crucial insights into the factors impacting hemodialysis patients' QOL and indicates avenues for treatments to improve their overall well-being. These findings may be built upon in future research and healthcare activities to better the lives of hemodialysis patients.

5.3 Limitations of the Study

1- This study's primary limitation is that it had a cross-sectional design. All the variables that could have an impact on SWB, PWB, and QOL could not be measured. Additionally, this design does not allow for a clear cause-and-effect relationship.

2- Another constraint to consider is that the results' capacity to be generalized will be less when we utilize the convenience sampling approach.

5.4 Recommendations:

Based on the study findings, the researcher would recommend the following:

1- Create and implement comprehensive education programs for patients. These programs should focus on increasing the understanding of patients about the disease, treatment options, dietary restrictions, and lifestyle modifications to help patients better manage their condition.

2- Incorporate spiritual health and psychological well-being support into the treatment plan. Offer counseling services and support groups to help patients cope with the

challenges associated with hemodialysis. Engaging in spiritual practices, such as inviting a religious leader (Sheikh) to provide teachings and sermons, and reciting passages from the Holy Qur'an during the course of treatment. Because these services will ultimately improve the QOL.

3- Develop rehabilitation programs to help patients regain independence and improve their physical health and overall QOL.

4- Encourage multidisciplinary Collaboration between nephrologists, psychologists, hemodialysis nurses, and family is crucial to jointly enhance the focus on improving the well-being of hemodialysis patients.

5- The development of financial resources for ESRD patients' needs to be expanded, which will enhance QOL.

6- Support future research into improving hemodialysis techniques and technologies to make treatments more efficient and less burdensome for patients

7- Development of nursing practices and formulate guidelines for providing nursing care regarding spiritual wellbeing, psychological wellbeing, and quality of life

References

Abdulqader, S. A., & Ali, B. M. (2023). Quality of Life of Patients in End-Stage Renal Disease Patients Undergoing Hemodialysis in Sulaimani City/Iraq. *Mosul Journal of Nursing, 11*(1), 227-239.

Adwan, L., Al-Sadi, T., Shawakha, S., & Ni'meh, A. (2022). Clinical outcomes of COVID-19 in Palestinian hemodialysis patients: A cross sectional study.

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Aini, N., & Wahyu, A. C. (2020b). The correlation between family support and psychological well-being in patients with end-stage renal disease. *KONTAKT-Journal of Nursing & Social Sciences related to Health & Illness, 22*(4).

Al-Jabi, S. W., Sous, A., Jorf, F., Taqatqa, M., Allan, M., Sawalha, L., Lubadeh, E., Sweileh, W. M., & Zyoud, S. e. H. (2021). Depression among end-stage renal disease patients undergoing hemodialysis: a cross-sectional study from Palestine. *Renal Replacement Therapy, 7*(1), 1-11.

Albuhayri, A. H., Alshaman, A. R., Alanazi, M. N., Aljuaid, R. M., Albalawi, R. I. M., Albalawi, S. S., Alsharif, M. O., Alharthi, N. M., & Prabahar, K. (2022). A cross-sectional study on assessing depression among hemodialysis patients. *Journal of Advanced Pharmaceutical Technology & Research, 13*(4), 266.

Alghamdi, A. H., Alaryni, A. A., Almatham, K. I., Alzahrani, N. H., Alabdullah, R. I., Alnutaifi, R. A., Alawam, S. S., Shulhub, A. S. B., & Moazin, O. M. (2023). Quality of life of end-stage kidney disease patients undergoing dialysis: A multi-center study from Saudi Arabia. *Saudi Journal of Medicine and Medical Sciences, 11*(1), 81.

Almarabheh, A., Al Ghamdi, M., Elbarbary, A., Alqashar, A., Alahmed, F., Alhaddar, H., AlSada, L., Omran, M., Khudhair, M., & Salih, M. (2021). Validity and Reliability of the WHOQOL-BREF in the Measurement of the Quality of Life of Sickle Disease Patients in Bahrain.

Almutary, H. (2022). Depression, sleep disturbance, and quality of life in patients undergoing dialysis therapy. *Applied Nursing Research, 67*, 151610.

Alradaydeh, M. F., & Khalil, A. A. (2018). The association of spiritual well-being and depression among patients receiving hemodialysis. *Perspectives in psychiatric care, 54*(3), 341-347.

Alradaydeh, M. F., & Khalil, A. A. (2019). The effectiveness of physical exercise on psychological status, and sleep quality among jordanian patients undergoing hemodialysis: literature review. *Open Journal of Nursing, 9*(12), 1267.

Alshelleh, S., Alhawari, H., Alhouri, A., Abu-Hussein, B., & Oweis, A. (2023). Level of Depression and Anxiety on Quality of Life Among Patients Undergoing Hemodialysis. *International Journal of General Medicine*, 1783-1795.

Alshraifeen, A., Alnuaimi, K., Al-Rawashdeh, S., Ashour, A., Al-Ghabeesh, S., & Al-Smadi, A. (2020). Spirituality, anxiety and depression among people receiving hemodialysis treatment in Jordan: A cross-sectional study. *Journal of religion and health, 59*, 2414-2429.

Alvarez, J. S., Goldraich, L. A., Nunes, A. H., Zandavalli, M. C. B., Zandavalli, R. B., Belli, K. C., Rocha, N. S. d., Fleck, M. P. d. A., & Clausell, N. (2016). Association between spirituality and adherence to management in outpatients with heart failure. *Arquivos brasileiros de cardiologia, 106*, 491-501.

Ammirati, A. L. (2020). Chronic kidney disease. *Revista da Associação Médica Brasileira, 66*, s03-s09.

Anees, M., Hameed, F., Mumtaz, A., Ibrahim, M., & Saeed, K. M. (2011). Dialysis-related factors affecting quality of life in patients on hemodialysis.

Aqtam, I., Ayed, A., & Zaben, K. (2023). Quality of Life: Concept Analysis. *Saudi J Nurs Health Care*, *6*(1), 10-15.

Asaah, E. (2020). *Influence of religiosity on psychological well-being of persons with chronic kidney disease receiving dialysis treatment at the cape coast teaching hospital, Ghana* University of Cape Coast].

Badahdah, A. M., Khamis, F., & Al Mahyijari, N. (2020). The psychological well-being of physicians during COVID-19 outbreak in Oman. *Psychiatry research*, *289*, 113053.

Bahadır-Yılmaz, E., Şahin, M., & Yüksel, A. (2022). Spiritual well-being and psychological well-being among hemodialysis patients in Turkey: a descriptive and correlational study. *Journal of religion and health*, 1-16.

Benjamin, O., & Lappin, S. L. (2021). End-stage renal disease. In *StatPearls [Internet]*. StatPearls Publishing.

Broers, N. J., Usvyat, L. A., Kooman, J. P., Van Der Sande, F. M., Lacson Jr, E., Kotanko, P., & Maddux, F. W. (2015). Quality of life in dialysis patients: a retrospective cohort study. *Nephron*, *130*(2), 105-112.

Buni, H. D. M. (2023). Quality of life of patients with End Stage Renal Disease at Tripoli, Libya.

Burlacu, A., Artene, B., Nistor, I., Buju, S., Jugrin, D., Mavrichi, I., & Covic, A. (2019). Religiosity, spirituality and quality of life of dialysis patients: a systematic review. *International Urology and Nephrology, 51,* 839-850.

Camacho-Alonso, F., Cánovas-García, C., Martínez-Ortiz, C., la Mano-Espinosa, D., Ortuño-Celdrán, T., Marcello-Godino, J., Ramos-Sánchez, R., & Sánchez-Siles, M. (2018). Oral status, quality of life, and anxiety and depression in hemodialysis patients and the effect of the duration of treatment by dialysis on these variables. *Odontology, 106*(2), 194-201.

Chatrung, C., Sorajjakool, S., & Amnatsatsue, K. (2015). Wellness and religious coping among Thai individuals living with chronic kidney disease in Southern California. *Journal of Religion and Health, 54*(6), 2198-2211.

Cheung, F. (2016). Can income inequality be associated with positive outcomes? Hope mediates the positive inequality–happiness link in rural China. *Social Psychological and Personality Science, 7*(4), 320-330.

Clark, C. C., & Hunter, J. (2019). Spirituality, spiritual well-being, and spiritual coping in advanced heart failure: Review of the literature. *Journal of Holistic Nursing, 37*(1), 56-73.

Cohen, R., Bavishi, C., & Rozanski, A. (2016). Purpose in life and its relationship to all-cause mortality and cardiovascular events: A meta-analysis. *Psychosomatic medicine, 78*(2), 122-133.

Coppola, I., Rania, N., Parisi, R., & Lagomarsino, F. (2021). Spiritual well-being and mental health during the COVID-19 pandemic in Italy. *Frontiers in Psychiatry, 12*, 626944.

Cruz, J. P., Colet, P. C., Alquwez, N., Inocian, E. P., Al-Otaibi, R. S., & Islam, S. M. S. (2017). Influence of religiosity and spiritual coping on health-related quality of life in Saudi haemodialysis patients. *Hemodialysis International, 21*(1), 125-132.

Cruz, J. P., Colet, P. C., Qubeilat, H., Al-Otaibi, J., Coronel, E. I., & Suminta, R. C. (2016). Religiosity and health-related quality of life: a cross-sectional study on Filipino Christian hemodialysis patients. *Journal of religion and health*, *55*, 895-908.

Davison, S. N., & Jhangri, G. S. (2010). Existential and religious dimensions of spirituality and their relationship with health-related quality of life in chronic kidney disease. *Clinical journal of the American Society of Nephrology: CJASN*, *5*(11), 1969.

de Boer, I. H., Caramori, M. L., Chan, J. C., Heerspink, H. J., Hurst, C., Khunti, K., Liew, A., Michos, E. D., Navaneethan, S. D., & Olowu, W. A. (2020). Executive summary of the 2020 KDIGO Diabetes Management in CKD Guideline: evidence-based advances in monitoring and treatment. *Kidney international*, *98*(4), 839-848.

Dembowska, E., Jaroń, A., Gabrysz-Trybek, E., Bladowska, J., Gacek, S., & Trybek, G. (2022). Quality of life in patients with end-stage renal disease undergoing hemodialysis. *Journal of clinical medicine*, *11*(6), 1584.

Doumit, M. A., Rahi, A. C., Saab, R., & Majdalani, M. (2019). Spirituality among parents of children with cancer in a Middle Eastern country. *European Journal of Oncology Nursing*, *39*, 21-27.

Ebrahimi, H., Ashrafi, Z., Eslampanah, G., & Noruzpur, F. (2014). Relationship between spiritual well-being and quality of life in hemodialysis patients. *Journal of Nursing and Midwifery Sciences, 1*(3), 41-48.

El-Habashi, A. F., El-Agroudy, A. E., Jaradat, A., Alnasser, Z. H., Almajrafi, H. H., Alharbi, R. H., Alanzy, A., & Alqahtani, A. M. (2020). Quality of life and its determinants among hemodialysis patients: A single-center study. *Saudi Journal of Kidney Diseases and Transplantation, 31*(2), 460-472.

El Kass, S., El-Senousy, T. A., & Jumaa, N. A. (2020). Factors affecting quality of life among patients undergoing hemodialysis program in gaza strip. *International Journal of Caring Sciences, 13*(2), 1221.

Elhadad, A. A., Ragab, A. Z. E. A., & Atia, S. A. A. (2020). Psychiatric comorbidity and quality of life in patients undergoing hemodialysis. *Middle East Current Psychiatry, 27*(1), 1-8.

Ellison, C. W. (1983). Spiritual well-being: Conceptualization and measurement. *Journal of psychology and theology, 11*(4), 330-338.

Faul, F., Erdfelder, E., Buchner, A., & Lang, A.-G. (2009). Statistical power analyses using G* Power 3.1: Tests for correlation and regression analyses. *Behavior research methods, 41*(4), 1149-1160.

Fayers, P. M., & Machin, D. (2013). *Quality of life: the assessment, analysis and interpretation of patient-reported outcomes*. John Wiley & Sons.

Feller, S. C., Castillo, E. G., Greenberg, J. M., Abascal, P., Van Horn, R., Wells, K. B., & University of California, L. A. C. T. S. T. (2018). Emotional well-being and public

health: Proposal for a model national initiative. *Public Health Reports, 133*(2), 136-141.

Firoz, M. N., Shafipour, V., Jafari, H., Hosseini, S. H., & Charati, J. Y. (2016). Sleep quality and depression and their association with other factors in hemodialysis patients. *Global journal of health science, 8*(8), 121.

Fradelos, E. C. (2021). Spiritual well-being and associated factors in end-stage renal disease. *The Scientific World Journal, 2021*, 1-9.

Fradelos, E. C., Alikari, V., Tsaras, K., Papathanasiou, I. V., Tzavella, F., Papagiannis, D., & Zyga, S. (2021). The effect of spirituality in quality of life of hemodialysis patients. *Journal of religion and health*, 1-12.

García-Llana, H., Remor, E., & Selgas, R. (2013). Adherence to treatment, emotional state and quality of life in patients with end-stage renal disease undergoing dialysis. *Psicothema, 25*(1), 79-86.

Gerasimoula, K., Lefkothea, L., Maria, L., Victoria, A., Paraskevi, T., & Maria, P. (2015). Quality of life in hemodialysis patients. *Materia socio-medica, 27*(5), 305.

Goodwin, E., & Kraft, K. (2022). Mental health and spiritual well-being in humanitarian crises: the role of faith communities providing spiritual and psychosocial support during the COVID-19 pandemic. *Journal of International Humanitarian Action, 7*(1), 21.

Group, W. (1998). Development of the World Health Organization WHOQOL-BREF quality of life assessment. *Psychological medicine, 28*(3), 551-558.

Gunarathne, T. G. N. S., Abdullah, K. L., Yoong, T. L., Nanayakkara, N., Kun, L. S., & Mohajer, S. (2022). Factors Influencing Stress Perception among Hemodialysis Patients: a Systematic Review. *Iranian Red Crescent Medical Journal, 24*(6).

Hagemann, P. d. M. S., Martin, L. C., & Neme, C. M. B. (2018). The effect of music therapy on hemodialysis patients' quality of life and depression symptoms. *Brazilian Journal of Nephrology, 41*, 74-82.

Hamdan-Mansour, A. M., Aboshaiqah, A. E., Thultheen, I. N., & Salim, W. M. (2015). Psychological wellbeing of Saudi patients diagnosed with chronic illnesses. *Psychology*, *6*(01), 55.

Hamdan-Mansour, A. M., Arabiat, D. H., Sato, T., Obaid, B., & Imoto, A. (2011). Marital abuse and psychological well-being among women in the southern region of Jordan. *Journal of Transcultural Nursing, 22*(3), 265-273.

Harahap, S. (2018). Faktor-Faktor Risiko Kejadian Gagal Ginjal Kronik (GGK) Di Ruang Hemodialisa (Hd) Rsup H. Adam Malik Medan. *Jurnal Online Keperawatan Indonesia, 1*(1), 92-109.

Helali, B., Sayed Mohamad, H., & Mahmoud Eliwa, S. (2022). The Relationship between Locus of Control and Psychological Well-Being among Hemodialysis Patients. *Egyptian Journal of Health Care, 13*(1), 761-775.

Himmelfarb, J., Vanholder, R., Mehrotra, R., & Tonelli, M. (2020). The current and future landscape of dialysis. *Nature Reviews Nephrology, 16*(10), 573-585.

Iqbal, M. S., Kassab, Y. W., Al-Saikhan, F. I., Almalki, Z. S., Haseeb, A., Iqbal, M. Z., & Ali, M. (2020). Assessing quality of life using WHOQOL-BREF: A cross-sectional

insight among patients on warfarin in Malaysia. *Saudi Pharmaceutical Journal, 28*(8), 936-942.

Ishtawi, S., Jomaa, D., Nizar, A., Abdalla, M., Hamdan, Z., & Nazzal, Z. (2023). Vitamin D level, pain severity and quality of life among hemodialysis patients: a cross-sectional study. *Scientific reports, 13*(1), 1182.

Işık Ulusoy, S., & Kal, Ö. (2020). Relationship among coping strategies, quality of life, and anxiety and depressive disorders in hemodialysis patients. *Therapeutic Apheresis and Dialysis, 24*(2), 189-196.

Jaberi, A., Momennasab, M., Yektatalab, S., Ebadi, A., & Cheraghi, M. A. (2019). Spiritual health: A concept analysis. *Journal of religion and health, 58*(5), 1537-1560.

Jadhav, B. S., Dhavale, H. S., Dere, S. S., & Dadarwala, D. D. (2014). Psychiatric morbidity, quality of life and caregiver burden in patients undergoing hemodialysis. *Medical Journal of Dr. DY Patil University, 7*(6), 722.

Jafaripoor, H., Safarabadi, M., Pourandish, Y., Khanmohammadi, A., Mohammad Aghaiepoor, S., Rahbarian, A., Poorcheraghi, H., & Jadidi, A. (2018). The elders' spiritual well-being and their quality of life: a cross-sectional study. *Journal of Client-Centered Nursing Care, 4*(3), 145-154.

Jansen, D. L., Grootendorst, D. C., Rijken, M., Heijmans, M., Kaptein, A. A., Boeschoten, E. W., Dekker, F. W., & nl, P.-S. G. d. j. n. (2010). Pre-dialysis patients' perceived autonomy, self-esteem and labor participation: associations with illness perceptions and treatment perceptions. A cross-sectional study. *BMC nephrology, 11*, 1-10.

Jassim, N. F., Nsg, B., & Mohammed, T. R. (2021). Psychological Effect of Hemodialysis on Patients in Dialysis Unit. *Annals of the Romanian Society for Cell Biology, 25*(6), 18823-18829.

Jones, D. J., Harvey, K., Harris, J. P., Butler, L. T., & Vaux, E. C. (2018). Understanding the impact of haemodialysis on UK National Health Service patients' well-being: A qualitative investigation. *Journal of Clinical Nursing, 27*(1-2), 193-204.

Joshi, U., Subedi, R., Poudel, P., Ghimire, P. R., Panta, S., & Sigdel, M. R. (2017). Assessment of quality of life in patients undergoing hemodialysis using WHOQOL-BREF questionnaire: a multicenter study. *International journal of nephrology and renovascular disease*, 195-203.

Kalfoss, M. H., Reidunsdatter, R. J., Klöckner, C. A., & Nilsen, M. (2021). Validation of the WHOQOL-Bref: Psychometric properties and normative data for the Norwegian general population. *Health and quality of life outcomes, 19*(1), 1-12.

Kanwal, H., & Mustafa, N. (2016). PSYCHOLOGICAL WELL-BEING AND QUALITY OF LIFE AMONG PHYSICALLY DISABLED AND NORMAL EMPLOYEES. *Pakistan Armed Forces Medical Journal, 66*(5).

Kao, Y.-Y., Lee, W.-C., Wang, R.-H., & Chen, J.-B. (2020). Correlation of sociodemographic profiles with psychological problems among hospitalized patients receiving unplanned hemodialysis. *Renal Failure, 42*(1), 255-262.

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Kaplan, G. A., Shema, S. J., & Leite, C. M. A. (2008). Socioeconomic determinants of psychological well-being: the role of income, income change, and income sources during the course of 29 years. *Annals of epidemiology, 18*(7), 531-537.

Khan, A., Khan, A. H., Adnan, A. S., Sulaiman, S. A. S., & Mushtaq, S. (2019). Prevalence and predictors of depression among hemodialysis patients: a prospective follow-up study. *BMC public health, 19*(1), 1-13.

Khanjani, M., Shahidi, S., Fathabadi, J., Mazaheri, M. A., & Shokri, O. (2014). Factor structure and psychometric properties of the Ryff's scale of Psychological well-being, short form (18-item) among male and female students. *Thoughts and Behavior in Clinical Psychology, 9*(32), 27-36.

Khwaja, A. (2012). KDIGO clinical practice guidelines for acute kidney injury. *Nephron Clinical Practice, 120*(4), c179-c184.

Kordan, Z., Lolaty, H. A., Mousavinasab, S. N., & Fard, J. H. (2019). Relationship between psychological well-being and social capital and resilience among cancer patients. *Journal of Nursing and Midwifery Sciences, 6*(3), 131.

Lai, Y.-C., Wang, C.-Y., Moi, S.-H., Wu, C.-H., Yang, C.-H., & Chen, J.-B. (2018). Factors associated with functional performance among patients on hemodialysis in Taiwan. *Blood Purification, 46*(1), 12-18.

Lameire, N. H., Levin, A., Kellum, J. A., Cheung, M., Jadoul, M., Winkelmayer, W. C., Stevens, P. E., Caskey, F. J., Farmer, C. K., & Fuentes, A. F. (2021). Harmonizing acute and chronic kidney disease definition and classification: report of a Kidney Disease: Improving Global Outcomes (KDIGO) Consensus Conference. *Kidney international, 100*(3), 516-526.

Lees, J. S., Welsh, C. E., Celis-Morales, C. A., Mackay, D., Lewsey, J., Gray, S. R., Lyall, D. M., Cleland, J. G., Gill, J. M., & Jhund, P. S. (2019). Glomerular filtration rate by differing measures, albuminuria and prediction of cardiovascular disease, mortality and end-stage kidney disease. *Nature medicine, 25*(11), 1753-1760.

Lemos, C. F., Rodrigues, M. P., & Veiga, J. R. P. (2015). Family income is associated with quality of life in patients with chronic kidney disease in the pre-dialysis phase: a cross sectional study. *Health and quality of life outcomes, 13*, 1-9.

Lim, Y. J., Sidor, N. A., Tonial, N. C., Che, A., & Urquhart, B. L. (2021). Uremic toxins in the progression of chronic kidney disease and cardiovascular disease: mechanisms and therapeutic targets. *Toxins, 13*(2), 142.

Lima, S., Teixeira, L., Esteves, R., Ribeiro, F., Pereira, F., Teixeira, A., & Magalhães, C. (2020). Spirituality and quality of life in older adults: A path analysis model. *BMC geriatrics, 20*, 1-8.

Ma, S.-J., Wang, W.-J., Tang, M., Chen, H., & Ding, F. (2021). Mental health status and quality of life in patients with end-stage renal disease undergoing maintenance hemodialysis. *Annals of Palliative Medicine, 10*(6), 6112-6121. https://apm.amegroups.org/article/view/70633

Mafi, M. H., Zeabadi, S. M., Mafi, M., & Golafshani, S. Z. H. (2019). Relationship between stressors and coping strategies in Iranian patients undergoing hemodialysis. *Jundishapur Journal of Chronic Disease Care, 8*(1).

Major, R. W., Shepherd, D., Medcalf, J. F., Xu, G., Gray, L. J., & Brunskill, N. J. (2019). The kidney failure risk equation for prediction of end stage renal disease in UK primary care: an external validation and clinical impact projection cohort study. *PLoS medicine, 16*(11), e1002955.

Malekmakan, L., Tadayon, T., Roozbeh, J., & Sayadi, M. (2018). End-stage renal disease in the Middle East: a systematic review and meta-analysis. *Iranian journal of kidney diseases, 12*(4), 195.

Malibary, H., Zagzoog, M. M., Banjari, M. A., Bamashmous, R. O., & Omer, A. R. (2019). Quality of Life (QoL) among medical students in Saudi Arabia: a study using the WHOQOL-BREF instrument. *BMC medical education, 19*(1), 1-6.

McConnachie, D. J., Stow, J. L., & Mallett, A. J. (2021). Ciliopathies and the kidney: a review. *American Journal of Kidney Diseases, 77*(3), 410-419.

Megahed, A. F., El-Kannishy, G., & Sayed-Ahmed, N. (2019). Status of fasting in Ramadan of chronic hemodialysis patients all over Egypt: A multicenter observational study. *Saudi Journal of Kidney Diseases and Transplantation, 30*(2), 339.

Mollaoğlu, M., & Başer, E. (2021). Investigation of Effect on Activities of Daily Living and Symptoms in Hemodilaysis Patients. *Nigerian Journal of Clinical Practice, 24*(9), 1332-1337.

Momtaz, Y. A., Ibrahim, R., Hamid, T. A., & Yahaya, N. (2011). Sociodemographic predictors of elderly's psychological well-being in Malaysia. *Aging & mental health, 15*(4), 437-445.

Moreira-Almeida, A., Pinsky, I., Zaleski, M., & Laranjeira, R. (2010). Envolvimento religioso e fatores sociodemográficos: resultados de um levantamento nacional no Brasil. *Archives of Clinical Psychiatry (São Paulo), 37*, 12-15.

Mosleh, H., Alenezi, M., Alsani, A., Fairaq, G., & Bedaiwi, R. (2020). Prevalence and factors of anxiety and depression in chronic kidney disease patients undergoing hemodialysis: a cross-sectional single-center study in Saudi Arabia. *Cureus, 12*(1).

Mugizi, W., Rwothumio, J., & Amwine, C. M. (2021). Compensation management and employee wellbeing of academic staff in Ugandan private universities during COVID-19 lockdown. *Interdisciplinary Journal of Education Research, 3*(1), 1-12.

Musa, A., Albashtawy, M., Qadire, M., Suliman, M., Tawalbeh, L., Alkhawaldeh, A., & Batiha, A.-M. (2022, 02/09). Spiritual Wellbeing and Quality of Life among Hemodialysis Patients in Jordan: A Cross-Sectional Correlational Study. *Journal of Holistic Nursing*. https://doi.org/10.1177/08980101221083422

Musa, A. S., & Pevalin, D. J. (2012). An Arabic version of the spiritual well-being scale. *International Journal for the Psychology of Religion, 22*(2), 119-134.

Musa, A. S., Pevalin, D. J., & Al Khalaileh, M. A. (2018). Spiritual well-being, depression, and stress among hemodialysis patients in Jordan. *Journal of Holistic Nursing, 36*(4), 354-365.

Musavi Ghahfarokhi, M., Mohammadian, S., Mohammadi Nezhad, B., & Kiarsi, M. (2020). Relationship between spiritual health and hope by dietary adherence in haemodialysis patients in 2018. *Nursing Open, 7*(2), 503-511.

Naseef, H. H., Haj Ali, N., Arafat, A., Khraishi, S., AbuKhalil, A. D., Al-Shami, N. m., Ladadweh, H., Alsheikh, M., Rabba, A. K., & Asmar, I. T. (2023). Quality of Life of Palestinian Patients on Hemodialysis: Cross-Sectional Observational Study. *The Scientific World Journal, 2023*.

Nazzal, Z., Hamdan, Z., Masri, D., Abu-Kaf, O., & Hamad, M. (2020). Prevalence and risk factors of chronic kidney disease among Palestinian type 2 diabetic patients: a cross-sectional study. *BMC nephrology, 21*, 1-8.

NC, G. R., & Sivakumar, K. (2023). Effect of perceived social support and level of hope on quality of life among chronic kidney disease patients in a tertiary care center in Chennai-A cross-sectional study. *Asian Journal of Medical Sciences*, *14*(4).

Nia, S., Hojjati, H., Nazari, R., Qorbani, M., & Akhoondzade, G. (2012). The effect of prayer on mental health of hemodialysis patients referring to Imam Reza Hospital in Amol City. *IJCCN*, *5*(1), 29-34.

Ningrum, Z. L., & Kusumaningrum, F. A. (2022). The Relationship between Attachment to God and Students' Psychological Well-Being. 3rd Borobudur International Symposium on Humanities and Social Science 2021 (BIS-HSS 2021),

Novita, D., Rokayah, C., Muliani, R., & Sumbara, S. (2022). The Relationship of Spirituality and Resilience in Patients that Received Hemodialysis. *Indonesian Journal of Global Health Research*, *4*(4), 685-690.

Ogutmen, B., Yildirim, A., Sever, M., Bozfakioglu, S., Ataman, R., Erek, E., Cetin, O., & Emel, A. (2006). Health-related quality of life after kidney transplantation in comparison intermittent hemodialysis, peritoneal dialysis, and normal controls. Transplantation proceedings,

Palestinian, M. (2022). Health Annual Report-Palestine 2020. *Ramallah: Palestinian Ministry of Health*.

Pawlaczyk, W., Rogowski, L., Kowalska, J., Stefańska, M., Gołębiowski, T., Mazanowska, O., Gerall, C., Krajewska, M., Kusztal, M., & Dziubek, W. (2022). Assessment of the nutritional status and quality of life in chronic kidney disease and kidney transplant patients: a comparative analysis. *Nutrients*, *14*(22), 4814.

Pei, M., Aguiar, R., Pagels, A. A., Heimbürger, O., Stenvinkel, P., Bárány, P., Medin, C., Jacobson, S. H., Hylander, B., & Lindholm, B. (2019). Health-related quality of life as predictor of mortality in end-stage renal disease patients: an observational study. *BMC nephrology, 20*(1), 1-10.

Perry, A., Casey, E., & Cotton, S. (2015). Quality of life after total laryngectomy: functioning, psychological well-being and self-efficacy. *International journal of language & communication disorders, 50*(4), 467-475.

Pilger, C., Caldeira, S., Rodrigues, R. A. P., Carvalho, E. C. d., & Kusumota, L. (2021). Spiritual well-being, religious/spiritual coping and quality of life among the elderly undergoing hemodialysis: a correlational study. *Journal of religion, spirituality & aging, 33*(1), 2-15.

Pilger, C., Santos, R. O. P. d., Lentsck, M. H., Marques, S., & Kusumota, L. (2017). Spiritual well-being and quality of life of older adults in hemodialysis. *Revista brasileira de enfermagem, 70*, 689-696.

Pompey, C. S., Ridwan, M. N., Zahra, A. N., & Yona, S. (2019). Illness acceptance and quality of life among end state renal disease patients undergoing hemodialysis. *Enfermeria clinica, 29*, 128-133.

Puchalski, C. M., Vitillo, R., Hull, S. K., & Reller, N. (2014). Improving the spiritual dimension of whole person care: reaching national and international consensus. *Journal of palliative medicine, 17*(6), 642-656.

Qaddumi, J. A., Al-Tell, M., Almahmoud, O., Issa, D. T., Alamri, M. S., Maniago, J. D., Khraisat, O. M., Khawaldeh, A. S., & AL-Dossary, R. N. (2020). Physiological and psychosocial stressors among Palestinian hemodialysis patients: A cross-sectional study. *Saudi Journal for Health Sciences, 9*(1), 50.

Queeley, G. L., & Campbell, E. S. (2018). Comparing treatment modalities for end-stage renal disease: a meta-analysis. *American health & drug benefits, 11*(3), 118.

Rabitti, E., Cavuto, S., Iani, L., Ottonelli, S., De Vincenzo, F., & Costantini, M. (2020). The assessment of spiritual well-being in cancer patients with advanced disease: which are its meaningful dimensions? *BMC palliative care, 19*(1), 1-8.

Raja Lexshimi, R., Mohd Fahmi, E., Lee, S., Nor Suhana, H., Norhazirah, H., & Sh Ezat, A. (2014). Spirituality and mental adjustment as coping strategies among women with breast cancer. *Malaysian Journal of Public Health Medicine, 14*(1).

Ranabhat, K., Khanal, P., Mishra, S. R., Khanal, A., Tripathi, S., & Sigdel, M. R. (2020). Health related quality of life among haemodialysis and kidney transplant recipients from Nepal: a cross sectional study using WHOQOL-BREF. *BMC nephrology, 21*(1), 1-8.

Ravindran, A., Sunny, A., Kunnath, R. P., & Divakaran, B. (2020). Assessment of quality of life among end-stage renal disease patients undergoing maintenance hemodialysis. *Indian journal of palliative care, 26*(1), 47.

Rehman, I. U., Lai, P. S., Kun, L. S., Lee, L. H., Chan, K. G., & Khan, T. M. (2020). Chronic kidney disease-associated pruritus and quality of life in Malaysian patients undergoing hemodialysis. *Therapeutic Apheresis and Dialysis, 24*(1), 17-25.

Ren, Q., Lian, M., Liu, Y., Thomas-Hawkins, C., Zhu, L., & Shen, Q. (2019). Effects of a transtheoretical model-based WeChat health education programme on self-management among haemodialysis patients: A longitudinal experimental intervention study. *Journal of advanced nursing, 75*(12), 3554-3565.

Rezaei, Z., Jalali, A., Jalali, R., & Khaledi-Paveh, B. (2018). Psychological problems as the major cause of fatigue in clients undergoing hemodialysis: A qualitative study. *International Journal of Nursing Sciences*, *5*(3), 262-267.

Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of personality and social psychology*, *57*(6), 1069.

Ryff, C. D., & Keyes, C. L. M. (1995). The structure of psychological well-being revisited. *Journal of personality and social psychology*, *69*(4), 719.

Ryff, C. D., & Singer, B. H. (2006). Best news yet on the six-factor model of well-being. *Social science research*, *35*(4), 1103-1119.

Saleem, R., & Sajid, A. (2015). Impact of spirituality on well-being among old age people. *Int J Indian Psychol*, *2*(3), 172-181.

Samoudi, A. F., Marzouq, M. K., Samara, A. M., Zyoud, S. e. H., & Al-Jabi, S. W. (2021). The impact of pain on the quality of life of patients with end-stage renal disease undergoing hemodialysis: a multicenter cross-sectional study from Palestine. *Health and quality of life outcomes*, *19*(1), 1-10.

Sathvik, B., Parthasarathi, G., Narahari, M., & Gurudev, K. (2008). An assessment of the quality of life in hemodialysis patients using the WHOQOL-BREF questionnaire. *Indian journal of nephrology*, *18*(4), 141.

Schulz, A. J., Israel, B. A., Zenk, S. N., Parker, E. A., Lichtenstein, R., Shellman-Weir, S., & Ab, L. K. (2006). Psychosocial stress and social support as mediators of relationships between income, length of residence and depressive symptoms among

African American women on Detroit's eastside. *Social science & medicine, 62*(2), 510-522.

Senmar, M., Razaghpoor, A., Mousavi, A. S., Zarrinkolah, F., Esmaeili, F., & Rafiei, H. (2020). Psychological symptoms in patients on dialysis and their relationship with spiritual well-being. *Florence Nightingale Journal of Nursing, 28*(3), 243.

Shahrin, F. I. M., Yu, L. Z., Omar, N., Zakaria, N. F., & Daud, Z. A. M. (2019). Association of socio-demographic characteristics, nutritional status, risk of malnutrition and depression with quality of life among elderly haemodialysis patients. *Malaysian Journal of Nutrition, 25*(1).

Shdaifat, E. A., & Manaf, M. R. A. (2012). Quality of life of caregivers and patients undergoing haemodialysis at Ministry of Health, Jordan. *Int J Appl, 2*(3), 78-85.

Shim, H. Y., & Cho, M. K. (2018). Factors influencing the quality of life of haemodialysis patients according to symptom cluster. *Journal of Clinical Nursing, 27*(9-10), 2132-2141.

Silva, L. A. M. d., Mezzomo, N. F., Pansard, H. M., Arantes, L. C., Rempel, W., Argenta, L. C., Rodrigues, A. T., Cauduro, R. L., Silva, D. M. d., & Konopka, C. L. (2009). Sobrevida em hemodiálise crônica: estudo de uma coorte de 1.009 pacientes em 25 anos. *Brazilian Journal of Nephrology, 31*, 190-197.

Steptoe, A., Deaton, A., & Stone, A. A. (2015). Psychological wellbeing, health and ageing. *Lancet, 385*(9968), 640.

Tang, Y.-Y., Tang, R., & Gross, J. J. (2019). Promoting psychological well-being through an evidence-based mindfulness training program. *Frontiers in human neuroscience, 13*, 237.

Tannor, E. K., Norman, B. R., Adusei, K. K., Sarfo, F. S., Davids, M. R., & Bedu-Addo, G. (2019). Quality of life among patients with moderate to advanced chronic kidney disease in Ghana-a single centre study. *BMC nephrology, 20*(1), 1-10.

Theofilou, P. (2013). Quality of life: definition and measurement. *Europe's journal of psychology, 9*(1).

Theofilou, P. A. (2012). The impact of sociodemographic and psychological variables on quality of life in patients with renal disease: findings of a cross-sectional study in Greece. *World Journal of Nephrology and Urology, 1*(4-5), 101-106.

Timkova, V., Mikula, P., Fedicova, M., Szilasiova, J., & Nagyova, I. (2021). Psychological well-being in people with multiple sclerosis and its association with illness perception and self-esteem. *Multiple sclerosis and related disorders, 54*, 103114.

Tran, P. Q., Nguyen, N. T. Y., Nguyen, B., & Bui, Q. T. H. (2022). Quality of life assessment in patients on chronic dialysis: Comparison between haemodialysis and peritoneal dialysis at a national hospital in Vietnam. *Tropical Medicine & International Health, 27*(2), 199-206.

van Sandwijk, M. S., Al Arashi, D., van de Hare, F. M., van der Torren, J. R., Kersten, M.-J., Bijlsma, J. A., Ten Berge, I. J., & Bemelman, F. J. (2019). Fatigue, anxiety, depression and quality of life in kidney transplant recipients, haemodialysis patients, patients with a haematological malignancy and healthy controls. *Nephrology Dialysis Transplantation, 34*(5), 833-838.

Vilca Gamarra, N. J. (2022). Efectividad de la educacion nutricional para una mejor adherencia dietetica y la mejora de la funcion renal en pacientes adultos con enfermedad renal crónica.

Wang, Q., Liu, H., Ren, Z., Xiong, W., He, M., Fan, X., Guo, X., Li, X., Shi, H., & Zha, S. (2020). Gender difference in the association of coping styles and social support with psychological distress among patients with end-stage renal disease. *PeerJ, 8*, e8713.

Webster, A. C., Nagler, E. V., Morton, R. L., & Masson, P. (2017). Chronic kidney disease. *The Lancet, 389*(10075), 1238-1252.

Wong, F. Y., Yang, L., Yuen, J. W., Chang, K. K., & Wong, F. K. (2018). Assessing quality of life using WHOQOL-BREF: A cross-sectional study on the association between quality of life and neighborhood environmental satisfaction, and the mediating effect of health-related behaviors. *BMC public health, 18*, 1-14.

Yaghoobzadeh, A., Soleimani, M. A., Allen, K. A., Chan, Y. H., & Herth, K. A. (2018). Relationship between spiritual well-being and hope in patients with cardiovascular disease. *Journal of religion and health, 57*, 938-950.

Yermakhanov, B., Zorba, E., Türkmen, M., & Akman, O. (2021). The validity and reliability study of WHO quality of life scale short form (WHOQOL-bref) in Kazakh language. *Sport Mont, 19*(2), 69-74.

Zibaei, M., Nobahar, M., & Ghorbani, R. (2020). Association of stress and anxiety with self-care in hemodialysis patients. *Journal of Renal Injury Prevention, 9*(2), e14-e14.

Zimmer, Z., Jagger, C., Chiu, C.-T., Ofstedal, M. B., Rojo, F., & Saito, Y. (2016). Spirituality, religiosity, aging and health in global perspective: A review. *SSM-population health, 2*, 373-381.

Zou, M., Xie, J., Lan, L., Zhang, Y., Tian, L., Chen, M., & Yan, Y. (2022). Safety and efficacy of hemodialysis and peritoneal dialysis in treating end-stage diabetic nephropathy: a meta-analysis of randomized controlled trials. *International Urology and Nephrology, 54*(11), 2901-2909.

Zyoud, S. e. H., Daraghmeh, D. N., Mezyed, D. O., Khdeir, R. L., Sawafta, M. N., Ayaseh, N. A., Tabeeb, G. H., Sweileh, W. M., Awang, R., & Al-Jabi, S. W. (2016). Factors affecting quality of life in patients on haemodialysis: a cross-sectional study from Palestine. *BMC nephrology, 17*(1), 1-12.

ANNEX (1)

IRB approval

Arab American University- Palestine
Deanship of Scientific Research
IRB committee
Tel: 04-241-8888, ext 1196
E-mail: irb.aaup@aaup.edu

الجامعة العربية الامريكية- فلسطين
عمادة البحث العلمي
لجنة اخلاقيات البحث العلمي
تلفون: 04-241-8888 ext 1196
البريد الالكتروني: irb.aaup@aaup.edu

IRB Approval Letter

Study Title: Spiritual well-being, psychological well-being, and quality of life among patients undergoing hemodialysis at west bank/ Palestine

Submitted by: Ata Labeeb Ata AlShareef

Date received: 25th January 2023

Date reviewed: 15th February 2023

Date approved: 18th March 2023

Your Study titled **"Spiritual well-being, psychological well-being, and quality of life among patients undergoing hemodialysis at west bank/ Palestine"** With archived number 2022/A/42/N was reviewed by the Arab American University IRB committee and was approved on 15th February 2023.

Reham Khalaf-Nazzal, MD, PhD
IRB committee chairman
Arab American University of Palestine

General Conditions:

1. Valid for 5 months from date of approval.
2. it is important to inform the committee with any modification of the approved study protocol.
3. The committee appreciates a copy of the research when accomplished.

ANNEX 2

M O H Permission

State of Palestine Ministry of Health ation in Health and Scientific Research Unit	دولة فلسطين وزارة الصحة وحدة التعليم الصحي والبحث العلمي

الرقـــم: ٢٠٢١/٥٤٨/١٦٢٤ ....

التـاريخ: ٢٠٢١/٣/١٤ ....

عطوفة الوكيل المساعد لمجمع فلسطين الطبي المحترم،،،

ق. أ. الوكيل المساعد لشؤون المستشفيات والطوارئ المحترم،،،

تحيــة واحتــرام،،،

الموضـــوع: تسهيل مهمة بحث

يرجى تسهيل مهمة الطالب: **عطا لبيب الشريف – ماجستير تمريض العناية المكثفة**- الجامعة العربية الامريكية، لعمل بحث بعنوان:

" الرفاه النفسي، الرفاه الروحاني ، وجودة الحياة الصحية بين المرضى الذين يخضعون لغسيل الكلى في الضفة الغربية/ فلسطين"

حيث ستقوم الطالب بجمع معلومات من خلال تعبئة استبانة الدراسة من قبل مرضى غسيل الكلى (بعد اخذ موافقتهم)، تحت اشراف د. عماد ابو خضر، وذلك في:

-مجمع فلسطين الطبي

-مستشفيات: - سلفيت - طولكرم - قلقيلية - جنين - طوباس

- يطا - اريحا - بيت جالا - عاليه

على ان يتم الالتزام بالمحافظة على اخلاقيات البحث العلمي وسرية المعلومات.
على ان يتم الالتزام بجميع التعليمات الصادرة عن وزارة الصحة بخصوص جائحة كورونا.
على ان يتم تزويد الوزارة بنسخة PDF من نتائج البحث، التعهد بعدم النشر لحين الحصول على موافقة وزارة الصحة.

مع الاحترام،،،

د. عبد الله القواسمي

رئيس وحدة التعليم الصحي والبحث العلمي

نسخة: مساعد العميد للشؤون الطبية والصحية المحترم/ الجامعة العربية الامريكية

دولة فلسطين وزارة الصحة
وحدة التعليم الصحي والبحث العلمي

ANNEX 2

NNUH Permission

Arab American University
Faculty of Graduate Studies

الجامعة العربية الأمريكية
كلية الدراسات العليا

9/3/2023

السّادة مستشفى النجاح الوطني الجامعي المحترمين.

تسهيل مهمة بحثية

تحية طيبة وبعد،

تهديكم كلية الدراسات العليا في الجامعة العربية الأمريكية أطيب التحيات، وبالإشارة الى الموضوع أعلاه، تشهد كلية الدراسات العليا في الجامعة أن الطالب **عطا لبيب عطا الشريف** والذي يحمل الرقم الجامعي**202112452**هو طالب ماجستير في برنامج تمريض العناية المكثفة ويعمل على رسالة الماجستير الخاصة به بعنوان:

"الرفاه الروحي، الرفاه النفسي، ونوعية الحياة لمرضى غسيل الكلى في الضفة الغربية / فلسطين تحت اشراف الدكتور عماد أبو خضر و الدكتورة ملكة ملك" نأمل من حضرتكم الإيعاز لمن يلزم لمساعدته للحصول على المعلومات اللازمة للدراسة، علماً أن المعلومات ستستخدم لغاية البحث فقط وسيتم التعامل معها بغاية السرية، وقد أعطيت هذه الرسالة بناءً على طلبه.

وتفضلوا بقبول فائق الاحترام

عميد كلية الدراسات العليا

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ANNEX 4

Consent Form and Questionnaire

الجامعة العربية الأمريكية

كلية الدراسات العليا

دراسة حول: : الرفاه النفسي، الرفاه الروحاني ، وجودة الحياة الصحية بين المرضى الذين يخضعون لغسيل الكلى في الضفة الغربية/ فلسطين".

تهدف هذه الدراسة الى " **تقييم الرفاه النفسي، الرفاه الروحاني ، وجودة الحياة الصحية بين المرضى الذين يخضعون لغسيل الكلى في الضفة الغربية/ فلسطين".**

هذه الدراسة ستوفر تقييما دقيقا ومناسبا لمستوى الرفاه النفسي، الرفاه الروحاني ، وجودة الحياة الصحية بين المرضى الذين يخضعون لغسيل الكلى في الضفة الغربية/ فلسطين من أجل تطوير برامج صحية أفضل واتخاذ الإجراءات اللازمة للتقليل من هذه المشكلة. جميع المعلومات سوف تعامل بسرية تامة ولن تُعطى أية معلومات بحيث يمكن التعرف على أي مُشارك أو مُشاركة في الاستبيان. علماً بأنه يحق لأي شخص مشارك في الاستبيان الانسحاب في أي وقت أراد.

مع شكري وتقديري لمساهمتكم/ مساهمتكن في تعبئة هذا الاستبيان. إجابة الأسئلة يعتمد على ما تعرفه أو تقوم به في الواقع. فلا توجد إجابات صحيحة أو خاطئة. الرجاء التأكد من قراءة كل سؤال، ووضع الإجابة المناسبة لكل سؤال والتي تطابق رأيك. ولذا فإن موافقتك على تعبئة الإستبيان هو بمثابة تفويض خطي.

وتقبلوا فائق الإحترام

اسم الباحث: عطا لبيب عطا الشريف

طالب ماجستير

اشراف : د. عماد ابو خضر د. ملكه ملك

للاستفسار : 0598180551

استبانة حول: الرفاه النفسي، الرفاه الروحاني ، وجودة الحياة الصحية بين المرضى الذين يخضعون لغسيل الكلى في الضفة الغربية/ فلسطين

1-المعلومات الديموغرافية

- **العمر:** .....
- **الجنس:** ☐ **ذكر** ☐ **أنثى**
- **الحالة الاجتماعية:** ☐ **أعزب / عزباء** ☐ **متزوج/ متزوجة** ☐ **مطلق/ مطلقة** ☐ **أرمل/ أرملة**
- **المستوى التعليمي** ☐ **ابتدائي** ☐ **اعدادي** ☐ **ثانوي** ☐ **بكالوريس فما فوق**
- **الدخل الشهري:** .....**بالشيقل**
- **مدة الإصابة بالمرض:** .....**بالسنوات**

2- مقياس الرفاه النفسي

أرجو التكرم بالاجابة على الأسئلة التالية بوضع اشارة (√) على الاختيار الذي يدل على مدى توافقك او عدم توافقك مع كل جملة من الجمل التالية . **حيث أن 1= أوافق بدرجة كبيرة** **2- أوافق بدرجة متوسطة** **3- أوافق** **4- لا أوافق**

5= لا اوافق بدرجة متوسطة **6= لا اوافق بدرجة كبيرة جد**

العبارة	اوافق بدرجة كبيرة جدا	اوافق بدرجة متوسطة	اوافق	لا اوافق	لا اوافق بدرجة متوسطة	لا اوافق بدرجة كبيرة
1- لقد كان الحفاظ على العلاقات الوثيقة أمرًا صعبًا ومحبطًا بالنسبة لي.						
2- يصفني الناس بأنني شخص معطاء وعلى استعداد لتقاسم وقتي مع الآخرين.						
3- لم أختبر الكثير من الثقة والعلاقات الحميمة مع الآخرين.						
4- أنا أحب معظم أجزاء شخصيتي.						
5- عندما ألقي نظرة على قصة حياتي، أكون						

سعيدًا بكيفية تطور وسير الأمور حتى الآن.						
العبارة	**اوافق بدرجة كبيرة جدا**	**اوافق بدرجة متوسطة**	**اوافق**	**لا اوافق**	**لا اوافق بدرجة متوسطة**	**لا اوافق بدرجة كبيرة**
6- أشعر بخيبة أمل من نواح كثيرة بشأن إنجازاتي في الحياة.						
7- أميل إلى التأثر بأشخاص لديهم آراء قوية.						
8- لدي ثقة في آرائي الخاصة ، حتى لو كانت مختلفة عن آراء الآخرين.						
9- أحكم على نفسي بما أعتقد أنه مهم، وليس من خلال قيم الآخرين.						
10- بالنسبة لي ، كانت الحياة عملية مستمرة للتعلم والتغيير والنمو.						
11- أعتقد أنه من المهم أن يكون لدي تجارب جديدة تتحدى طريقة تفكيري عن نفسي والعالم.						
12- لقد تخليت عن محاولة إجراء تغييرات كبيرة في حياتي منذ وقت طويل.						
13- غالبًا ما تحبطني متطلبات الحياة اليومية.						
14- بشكل عام ، أشعر أنني مسؤول عن الوضع الذي أعيش فيه.						
15- أنا جيد في إدارة مسؤوليات الحياة اليومية.						
16- يعيش بعض الناس بلا هدف في الحياة ، لكنني لست واحدًا منهم.						
17- أعيش الحياة يوماً بيوم ولا أفكر حقًا في المستقبل.						
18- أشعر أحيانًا بأنني فعلت كل ما يمكنني فعله في الحياة.						

3- مقياس الرفاه الروحاني

أرجو التكرم بالاجابة على الأسئلة التالية بوضع اشارة (√) على الاختيار الذي يدل على مدى توافقك او عدم توافقك مع كل جملة من الجمل التالية . حيث أن 1= أوافق بدرجة كبيرة 2- أوافق بدرجة متوسطة 3- أوافق

4- لا أوافق 5 - لا أوافق بدرجة متوسطة 6- لا أوافق بدرجة كبيرة

العبارة	اوافق بدرجة كبيرة جدا	اوافق بدرجة متوسطة	اوافق	لا اوافق	لا اوافق بدرجة متوسطة	لا اوافق بدرجة كبيرة جدا
1. لا اشعر بارتياح في مناجاتي وتوسلي إلى الله.						
2. لا اعلم من أنا، أو من اين أتيت، او ما سيكون مصيري.						
3. أؤمن ان الله يحبني ويحفظني برعايته.						
4. أرى أن الحياة تدعو للتفاؤل.						
5. أعتقد أن الله يرعى أمور حياتي اليومية.						
6. أشعر بالقلق على مستقبلي.						
7. تربطني بالله علاقة عميقة.						
8. أشعر بالاكتفاء والرضا في الحياة.						
9. لا استمد العون والصبر الكافيين من الله (سبحانه وتعالى)						
10. اشعر بالارتياح التام بالاتجاه الذي تسير به حياتي.						
11. اعتقد ان الله يرعاني في همومي.						
12. أحب الحياة.						
13. لا تصلني بالله علاقة مُرضية.						
العبارة	**اوافق بدرجة**	**اوافق بدرجة**	**اوافق**	**لا اوافق**	**لا اوافق بدرجة**	**لا اوافق بدرجة**

	كبيرة جدا	متوسطة			متوسطة	كبيرة جدا
14. استبشر بمستقبلي.						
15. صلتي بالله تدفع عني الشعور بالوحدة.						
16. أرى أن الحياة مثقلة بالتناقضات والمآسي.						
17. أشعر بأعلى درجات الطمأنينة عندما أكون على صلة متينة بالله.						
18. لا تحمل الحياة الكثير من المعنى.						
19. صلتي بالله تشعرني بالارتياح.						
20. اعتقد أن هناك غاية مجدية لوجودي في الحياة.						

4- مقياس نوعية الحياة المتعلقة بالصحة

هذا الجزء يسأل كيفية شعورك حول نوعية الحياة الخاصة بك، والصحة، أو غيرها من مجالات حياتك .الرجاء الإجابة على جميع الأسئلة .إذا كنت غير متأكد حول أي استجابة لإعطائها على السؤال، يرجى اختيار الاجابة التي تبدو مناسبة وهذه غالبا ما تكون الاستجابة الأولى .
يرجى أن تضع في الاعتبار المعايير الخاصة بك والآمال، المتع والمخاوف كما نطلب منك أن تفكر في حياتك خلال الأسبوعين الماضيين

1- الصحة الجسدية

1- إلى أي مدى تشعر بأن الألم (الجسدي) يمنعك من أداء أعمال يجب عليك القيام بها؟

1	2	3	4	5
أبدا، مطلقا	بدرجة قليلة	بدرجة متوسطة	بدرجة كبيرة	بدرجة كبيرة جدا

2- الى أي مدى تحتاج علاج طبي لتأدية أعمالك اليومية؟

1	2	3	4	5
أبدا، مطلقا	بدرجة قليلة	بدرجة متوسطة	بدرجة كبيرة	بدرجة كبيرة جدا

3- هل لديك طاقة كافية للحياة اليومية؟

1	2	3	4	5
أبدا	بدرجة قليلة	بدرجة متوسطة	بدرجة كبيرة	بدرجة كاملة

4- إلى أي مدى أنت قادر على التحرك من مكان لآخر؟

1	2	3	4	5
أبدا	بدرجة قليلة	بدرجة متوسطة	بدرجة كبيرة	بدرجة كبيرة جدا

- الى أي مدى أنت راض عن نومك؟5

1	2	3	4	5
غير راض مطلقا	غير راض	لا راض ولا غير راض	راض	راض تماما

6 - الى أي مدى أنت راض عن قدرتك على أداء أنشطتك اليومية؟

1	2	3	4	5
غير راض مطلقا	غير راض	لا راض ولا غير راض	راض	راض تماما

7- الى أي مدى أنت راض عن مقدرتك على العمل؟

1	2	3	4	5
غير راض مطلقا	غير راض	لا راض ولا غير راض	راض	راض تماما

2- الصحة النفسية

1- الى أي مدى أنت قادر على الاسترخاء والاستمتاع؟

1	2	3	4	5
أبدا، مطلقا	بدرجة قليلة	بدرجة متوسطة	بدرجة كبيرة	بدرجة كبيرة جدا

2- إلى أي مدى تعتقد أن لحياتك معنى؟

1	2	3	4	5
أبدا، مطلقا	بدرجة قليلة	بدرجة متوسطة	بدرجة كبيرة	بدرجة كبيرة جدا

3- ما مدى قدرتك على قوة التركيز ؟

1	2	3	4	5
أبدا، مطلقا	بدرجة قليلة	بدرجة متوسطة	بدرجة كبيرة	بدرجة كبيرة جدا

4- هل أنت قادر على تقبل مظهرك الخارجي؟

1	2	3	4	5
أبدا، مطلقا	بدرجة قليلة	بدرجة متوسطة	بدرجة كبيرة	بدرجة كاملة

5- الى أي مدى أنت راض عن نفسك ؟

1	2	3	4	5
غير راض مطلقا	غير راض	لا راض ولا غير راض	راض	راض تماما

6 - الى أي مدى يتكرر لديك شعور سلبي ، مثل مزاج متعكر، احباط، قلق؟

1	2	3	4	5
أبدا	نادرا	أحيانا	معظم الوقت	دائما

3- العلاقات الاجتماعية

1- الى أي مدى أنت راض عن علاقاتك الشخصية ؟

1	2	3	4	5
غير راض مطلقا	غير راض	لا راض ولا غير راض	راض	راض تماما

2- الى أي مدى أنت راض عن حياتك الجنسية؟

1	2	3	4	5
غير راض مطلقا	غير راض	لا راض ولا غير راض	راض	راض تماما

3- الى أي مدى أنت راض عن عون أصدقائك لك؟

1	2	3	4	5
غير راض مطلقا	غير راض	لا راض ولا غير راض	راض	راض تماما

4-البيئة

1- ما هو مدى شعورك بالأمان في حياتك اليومية؟

1	2	3	4	5
أبدا، مطلقا	بدرجة قليلة	بدرجة متوسطة	بدرجة كبيرة	بدرجة كبيرة جدا

2- الى أي مدى البيئة التي تحيط بك صحية؟

1	2	3	4	5
أبدا، مطلقا	بدرجة قليلة	بدرجة متوسطة	بدرجة كبيرة	بدرجة كبيرة جدا

3- هل لديك أموال كافية لمواجهة احتياجاتك؟

1	2	3	4	5
أبدا	بدرجة قليلة	بدرجة متوسطة	بدرجة كبيرة	بدرجة كاملة

4- الى أي مدى تتوافر المعلومات التي تحتاجها يوميا في حياتك ؟

1	2	3	4	5
أبدا	بدرجة قليلة	بدرجة متوسطة	بدرجة كبيرة	بدرجة كاملة

5 -إلى أي مدى تتوافر لك الفرص لقضاء وقت الفراغ؟

1	2	3	4	5
أبدا	بدرجة قليلة	بدرجة متوسطة	بدرجة كبيرة	بدرجة كاملة

6- إلى أي مدى أنت راض عن الظروف في المكان الذي تعيش فيه ؟

1	2	3	4	5
غير راض مطلقا	غير راض	لا راض ولا غير راض	راض	راض تماما

7- إلى أي مدى أنت راض عن الحصول على الخدمات الصحية ؟

1	2	3	4	5
غير راض مطلقا	غير راض	لا راض ولا غيرراض	راض	راض تماما

8 - إلى أي مدى أنت راض عن وسائل مواصلاتك ؟

1	2	3	4	5
غير راض مطلقا	غير راض	لا راض ولا غير راض	راض	راض تماما

الجودة الشاملة للحياة والصحة العامة

1- كيف تقيم جودة حياتك؟

1	2	3	4	5
سيء جدا	سيء	لا بأس	جيد	جيد جدا

2-إلى أي مدى أنت راض عن صحتك؟

1	2	3	4	5
غير راض مطلقا	غير راض	لا راض ولا غير راض	راض	راض تماما

شكرا لك

ANNEX 5

Descriptive statistics of the level of perception of psychological well-being

Descriptive statistics of the level of perception of psychological well-being (n = 413)						
Item	**Mean**	**SD**	**P_{25}**	**P_{50}**	**P_{75}**	**Possible scores range**
Positive Relations with Others Subscale						
Maintaining close relationships has been difficult and frustrating for me(R)	3.1	1.5	2	3	4	1 – 6
People would describe me as a giving person, willing to share my time with others	4.6	1.3	4	5	6	1 – 6
I have not experienced many warm and trusting relationships with others(R)	3.2	1.4	2	3	4	1 – 6
Overall domain	**10.9**	**2.5**	**9**	**10**	**12**	**3 – 18**
Self-Acceptance Subscale						
I like most parts of my personality	4.7	1.3	4	5	6	1 – 6
When I look at the story of my life, I am pleased with how things have turned out so far	4.0	1.5	3	4	5	1 – 6
In many ways I feel disappointed about my achievements in life(R)	3.3	1.6	2	3	4	1 – 6
Overall domain	**12.0**	**2.8**	**10**	**12**	**14**	**3 – 18**
Autonomy Subscale						
I tend to be influenced by people with strong opinions(R)	3.1	1.5	2	3	4	1 – 6
I have confidence in my own opinions, even if they are different from the way most other people think	4.7	1.2	4	5	6	1 – 6
I judge myself by what I think is important, not by the values of what others think is important	4.6	1.2	4	5	6	1 – 6
Overall domain	**12.4**	**2.3**	**11**	**12**	**14**	**3 – 18**
Personal Growth Subscale						
For me, life has been a continuous process of learning, changing, and growth	4.5	1.2	4	5	6	1 – 6
I think it is important to have new	4.3	1.3	4	4	5	1 – 6

experiences that challenge how I think about myself and the world						
I gave up trying to make big improvements or changes in my life a long time ago[(R)]	3.2	1.5	2	3	4	1 – 6
Overall domain	**12.0**	**2.5**	**10**	**12**	**13**	**3 – 18**
Environmental Mastery Subscale						
The demands of everyday life often get me down[(R)]	3.2	1.5	2	3	4	1 – 6
In general, I feel I am in charge of the situation in which I live	4.0	1.5	3	4	5	1 – 6
I am good at managing the responsibilities of daily life	4.4	1.3	4	4	5	1 – 6
Overall domain	**11.6**	**2.6**	**10**	**12**	**13**	**3 – 18**
Purpose in Life Subscale						
Some people wander aimlessly through life, but I am not one of them	4.3	1.4	4	4	6	1 – 6
I live life one day at a time and don't really think about the future[(R)]	3.1	1.6	2	3	4	1 – 6
I sometimes feel as if I've done all there is to do in life[(R)]	3.0	1.5	2	3	4	1 – 6
Overall domain	**10.4**	**2.6**	**9**	**10**	**12**	**3 – 18**
PWBS						
Overall scale	**69.2**	**8.6**	**63**	**68**	**75**	**18 – 108**

SD: Standard deviation; P_{25}: 25th percentile; P_{50}: 50th percentile; P_{75}: 75th percentile; PWBS: Psychological well-being scale; (R): Reverse-scored item

ANNEX 6

Descriptive statistics of the level of perception of spiritual well-being and its subscales

Table 8: Descriptive statistics of the level of perception of spiritual well-being and its subscales: religious well-being and existential well-being (n = 413)

Item	Mean	SD	P_{25}	P_{50}	P_{75}	Possible scores range
RWBS						
I don't find much satisfaction in private prayer with God(R)	4.8	1.4	4	5	6	1 – 6
I believe that God loves me and cares about me	5.2	1.2	4	6	6	1 – 6
I believe that God takes care of my daily life	5.3	1.1	5	6	6	1 – 6
I have a personally meaningful relationship with God	5.1	1.2	4	6	6	1 – 6
I don't get much personal strength and support from my God(R)	4.7	1.5	4	5	6	1 – 6
I believe that God is concerned about my problems	5.3	1.1	5	6	6	1 – 6
I don't have a personally satisfying relationship with God(R)	4.3	1.9	3	5	6	1 – 6
My relationship with God helps me not to feel lonely	4.8	1.5	4	5	6	1 – 6
I feel most fulfilled when I'm in close communion with God	5.2	1.1	5	6	6	1 – 6
My relation with God contributes to my sense of well-being	5.3	1.1	5	6	6	1 – 6
Total domain	**50.0**	**7.7**	**45**	**51**	**56**	**10 – 60**
EWBS						
I don't know who I am, where I came from, or where I'm going(R)	4.4	1.5	4	4	6	1 – 6
I feel that life is a positive experience	4.4	1.4	3	4	6	1 – 6

I feel unsettled about my future(R)	3.3	1.5	2	3	4	1 – 6
I feel very fulfilled and satisfied with life	4.7	1.3	4	5	6	1 – 6
I feel a sense of well-being about the direction my life is headed in	4.2	1.4	3	4	5	1 – 6
I enjoy much about life	4.5	1.4	4	4	6	1 – 6
I feel good about my future	4.1	1.4	3	4	5	1 – 6
I feel that life is full of conflict and unhappiness(R)	2.7	1.3	2	3	3	1 – 6
Life doesn't have much meaning(R)	3.2	1.5	2	3	4	1 – 6
I believe there is some real purpose for my life	4.5	1.4	4	5	6	1 – 6
Total domain	**40.1**	**7.6**	**35**	**40**	**45**	**10 – 60**
SWBS						
Total score	**90.1**	**13.0**	**81**	**90**	**100**	**20 – 120**

SD: Standard deviation; P_{25}: 25th percentile; P_{50}: 50th percentile; P_{75}: 75th percentile; SWBS: Spiritual well-being; RWBS: Religious well-being subscale; EWBS: Existential well-being subscale; (R): Reverse-scored item

ANNEX7

Descriptive statistics of the sample's quality of life

Table 11: Descriptive statistics of the sample's quality of life assessed by the WHOQOL-BREF questionnaire (n = 413)

Item	Mean	SD	Possible scores range
General facet (subjective well-being)			
Overall rating of QOL	3.2	1.0	1 – 5
Satisfaction with general health	3.0	1.1	1 – 5
Physical domain			
Pain prevents activities[(R)]	2.7	1.1	1 – 5
Need treatment to function[(R)]	2.7	1.1	1 – 5
Enough energy for daily life	2.7	1.0	1 – 5
Able to get around	2.9	1.0	1 – 5
Satisfaction with sleep	2.8	1.2	1 – 5
Satisfaction with daily living activities	2.8	1.1	1 – 5
Satisfaction with work capacity	2.6	1.1	1 – 5
Total domain	**11**	**2.9**	**4-20**
Psychological domain			
How much enjoy life	2.6	0.9	1 – 5
Feel life meaningful	3.0	1.0	1 – 5
Able to concentrate	3.0	1.0	1 – 5
Accept bodily appearance	3.6	1.0	1 – 5
Satisfaction with self	3.6	1.1	1 – 5
How often negative feelings[(R)]	2.7	0.9	1 – 5
Total domain	**12.2**	**2.5**	**4-20**
Social relationships domain			
Satisfaction with personal relationships	3.6	1.0	1 – 5
Satisfaction with sex life	2.9	1.2	1 – 5
Satisfaction with friends' support	3.4	1.1	1 – 5
Total domain	**13.1**	**3.4**	**4-20**
Environmental domain			
Feel safe in daily life	3.0	1.0	1 – 5
Healthy physical environment	3.0	1.0	1 – 5
Have enough money for needs	2.6	1.0	1 – 5
Satisfaction information for daily life	2.9	0.9	1 – 5
Have leisure opportunity	2.8	0.9	1 – 5
Satisfaction living place	3.4	1.1	1 – 5
Satisfaction with access to health service	3.0	1.1	1 – 5

Satisfaction with transport	3.0	1.2	1 – 5
Total domain	**11.8**	**16.4**	**4-20**
Total score (WHOQOL-BREF)	**11.8**	**2.9**	**4-20**
QOL: Quality of life; (R): Reverse-scored item			

الملخص

خلفية الدراسة : مرض الفشل الكلوي المزمن هومصدر قلق صحي عالمي، يحتاج المرضى إلى علاج طويل الأمد، واكثر اشكال العلاج شيوعا هو إجراء الغسيل في جميع أنحاء العالم، والذي يؤثر بشكل كبير على رفاهية المريض وجودة حياته بشكل عام.

الأهداف: هدفت هذه الدراسه لتقييم الرفاه الروحي، الرفاه النفسي، و نوعية الحياه للمرضى بين مرضى غسيل الكلى الدموي في الضفة الغربيه _ فلسطين.

المنهيجه: اجريت دراسة مقطعية وصفية ارتباطية، اشتملت على 413 مريضًا فلسطينيًا يتلقون غسيل الكلى في أحد عشر مركزًا في الضفة الغربية ، حيث قام المشاركون بملء استبيان منظم ذاتي. تم جمع البيانات باستخدام مقياس الرفاهية الروحية ، مقياس الرفاهيه النفسية ، وكذلك مقاس نوعية الحياه خلال الفتره ما بين 28 اذار الى 10 اب 2023.

النتائج: كان متوسط درجات الرفاه الروحي (90.1)، الرفاه النفسي(69.1)، و نوعية الحياه (11.8) للمرضى ، وكان هناك ارتباط إيجابي كبير بين جودة الحياة والصحة النفسية والرفاهية الروحية والمستوى التعليمي والحالة الاجتماعية وارتباط سلبي مع العمر. أظهر الانحدار الخطي المتعدد أن الرفاهية الروحية، والرفاهية النفسية، والمستوى التعليمي، والحالة الاجتماعية كانت تنبئ بنوعية الحياة.

الاستنتاج: كان لدى مرضى غسيل الكلى مستوى معتدل من الرفاهية الروحيه، ومستوى مرتفع من الرفاهية النفسية، ودرجة منخفضه لنوعية الحياة. كان المستوى المرتفع لكل من الرفاهيه الروحية،

الرفاهية النفسية، ودرجة التعليم ، وكذلك الحالة الاجتماعية الأعزب / المتزوج، منبئين لدرجة اعلى لجودة الحياة .