INFLUENCES OF PSYCHOSOCIAL SUPPORT SERVICES AND PSYCHOLOGICAL RESILIENCE ON HEALTH-RELATED QUALITY OF LIFE IN PATIENTS WITH MULTIPLE SCLEROSIS IN KUWAIT

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LIST OF SYMBOLS

x^2	The table value of chi-square for 1 degree of freedom at the desired confidence level (3.841).
D	The degree of accuracy expressed as a proportion (.05).
N	The population size
P	The population proportion
S	Required sample size
S	Required sample size

LIST OF ABBREVIATIONS

MS	Multiple Sclerosis
PwMS	Patient with Multiple Sclerosis
RRMS	Relapsing-remitting Multiple Sclerosis
PPMS	Primary progressive Multiple Sclerosis
SPMS	Secondary Progressive Multiple Sclerosis
RES	Rapidly Evolving Severe Relapsing-Remitting
CNS	Central Nervous System
CDC	Centers for Disease Control and Prevention
QoL	Quality of Life
HRQoL	Health-Related Quality of Life
PSS	Psychosocial Support Services
PS	Psychological Resilience
CSW	Clinical Social Worker
COVID-19	Corona-virus Disease 2019
GCC	Cooperation Gulf Council
PHCC	Primary Healthcare Centers
WHO	World Health Organization
LOC	The Locus of Control
ILOC	Internal Locus of Control
ELOC	External Locus of Control
MRR	The Metatheory of Resilience and Resiliency
SDT	Self-Determination Theory
QUAN	Quantitative
HRQoL-Brief	Health-Related Quality of Life-Brief
WHOQOL-100	World Health Organization Quality of Life-100
PACIC-5As	Assessment of Chronic Illness Care- Arabic
CD-RISC	Connor-Davidson Resilience Scale
SEM	Structural Equation Modelling

PLS-SEM	Partial Least Squares Structural Equation Modelling
PLS-SEM	Partial Least Squares Structural Equation Modelling
EFA	Exploratory Factor Analysis

LIST OF APPENDICES

PENGARUH PERKHIDMATAN SOKONGAN PSIKOSOSIAL DAN KETAHANAN PSIKOLOGI TERHADAP KUALITI HIDUP BERKAITAN KESIHATAN PADA PESAKIT PELBAGAI SKLEROSIS DI KUWAIT

ABSTRAK

Berdasarkan Teori Kawalan Lokus, Metateori Ketahanan dan Ketahanan, serta Penentu Kendiri, kajian ini mengkaji peranan faktor psikososial seperti perkhidmatan sokongan dan daya tahan terhadap kualiti hidup berkaitan kesihatan (HRQoL) dan kualiti hidup keseluruhan pesakit dengan pelbagai sklerosis (MS). Sejumlah 230 pesakit MS yang dirawat di hospital Ibn-Sina dan al- Ameri di Kuwait telah mengambil bahagian dalam kajian ini. Kajian ini menggunakan kedua-dua pendekatan dua peringkat terputus bagi kuasa dua terkecil separa - pemodelan persamaan struktur (PLS-SEM) dan analisis berbilang kumpulan (MGA) untuk menganalisis model laluan dan membandingkan kesan faktor psikososial merentas pesakit lelaki dan wanita dengan MS. Hasil kajian menyokong kesan langsung hipotesis perkhidmatan sokongan psikososial dan daya tahan psikologi terhadap (1) QoL dan HRQoL keseluruhan. Hasilnya juga menunjukkan perbezaan yang ketara antara kesan perkhidmatan sokongan psikososial pada keseluruhan QoL, dengan kesan ini menjadi lebih kuat untuk pesakit lelaki dengan MS. Sementara itu, penemuan menunjukkan perbezaan yang ketara antara kesan daya tahan psikologi terhadap keseluruhan QoL, dengan kesan ini menjadi lebih kuat untuk pesakit wanita dengan MS. Kajian ini memberi sumbangan yang signifikan kepada literatur dengan membandingkan faktor psikososial dan QoL keseluruhan pesakit lelaki dan wanita dengan MS telah mengenal pasti heterogeniti yang lebih besar dalam kalangan pesakit wanita dengan MS. Pembuat dasar dan pekerja

sosial klinikal (CSW) boleh menyumbang kepada meningkatkan perkhidmatan sokongan psikososial dan daya tahan psikologi pesakit MS dan meningkatkan kualiti hidup mereka secara keseluruhan. Oleh itu, kajian ini menawarkan sumbangan teori dan implikasi praktikal yang signifikan mengenai peningkatan HRQoL pesakit Kuwait dengan MS.

INFLUENCES OF PSYCHOSOCIAL SUPPORT SERVICES AND PSYCHOLOGICAL RESILIENCE ON HEALTH-RELATED QUALITY OF LIFE IN PATIENTS WITH MULTIPLE SCLEROSIS IN KUWAIT

ABSTRACT

Drawing upon the Locus Control Theory, Metatheory of Resilience and Resiliency, and Self-Determinant, this study examined the role of the psychosocial factors such as support services and resilience on health-related quality of life (HRQoL) and overall QoL of patients with multiple sclerosis (MS). A total of 230 PwMS treated in Ibn-Sina and al-Ameri hospitals in Kuwait participated in the study. This study uses both the disjoint two-stage approach of partial least squares – structural equation modeling (PLS-SEM) and multi-group analysis (MGA) to analyze the path model and compare the effects of psychosocial factors across male and female patients with MS. Results supported the hypothesized direct effects of psychosocial support services and psychological resilience on (1) overall QoL and HRQoL. The results also showed significant differences between the effect of psychosocial support services on overall QoL, with this effect being much stronger for male patients with MS. Meanwhile, the findings demonstrated significant differences between the effects of psychological resilience on overall QoL, with this effect being much stronger for female patients with MS. This study makes a significant contribution to the literature by comparing the psychosocial factors and overall QoL of male and female PwMS having identified greater heterogeneity among female patients with MS. Policymakers and clinical social workers (CSWs) can contribute to enhancing the psychosocial support services and psychological resilience of PwMS and improve their overall QoL. Therefore, this study

proffers significant theoretical contributions and practical implications regarding the improving HRQoL of Kuwait patients with MS.

CHAPTER 1

INTRODUCTION

1.1 Introduction

Extensive studies have been conducted on Health-Related Quality of Life (HRQoL) in Patients with Multiple Sclerosis (PwMS), and the majority of the literature suggests that this condition has serious implications for PwMS. HRQoL has become a significant resource for clinical and rehabilitation outcomes. Understanding the mechanisms by which Multiple Sclerosis (MS) affects HRQoL and psychosocial well-being has received extensive studies and attention within the last decades (Dharma-Warden et al., 2004; Owczarek, 2010; Dharma-Warden et al., 2004; Owczarek, 2010; Revicki et al., 2014). This bulk of studies has established that MS's impact on HRQOL involves a complicated interaction of physical, psychological, social, and environmental variables (Shofany, 2017; Huang et al., 2017; Casetta et al., 2009; Schwartz & Frohner, 2005).

Despite the fact that HRQoL among PwMS has received increased research attention, the aftermath of the 2019 Coronavirus disease (COVID-19) pandemic for MS sufferers was primarily perceived to be challenging in the present study (Stojanov et al., 2020). Nonetheless, there is reason to believe that living with MS under the COVID-19 pandemic's governmental restrictions can be fairly uncomfortable. This is the time when HRQoL assessment and proposed interventions are discussed. Similarly, psychological resilience serves a crucial function in HRQoL in the face of adversity, such as receiving a diagnosis of multiple sclerosis or disasters such as the COVID-19 pandemic.

The procedure for an outpatient consultation is the cornerstone of providing healthcare. This can be accomplished by contemplating PwMS choice and expectations of healthcare quality through comprehensive consultations that respect and consider PwMS preferences. Psychosocial Support Services (PSS) provided by multidisciplinary MS clinics (including Clinical Social work- CSW) through consultation models and assessment, agreement, and participation of patients when making choices and accepting advice help to explain how PwMS might communicate during a scheduled appointment.

The principle of the Clinical Social Worker (CSW) is to define the psychosocial needs of the PwMS and present a framework offering methods of CSW intervention. This plan is designed to cater to the comprehensive healthcare needs of PwMS by adopting a multidisciplinary team approach that takes into account their long-term demands (Geronemus, 1980). Social workers play a crucial role in delivering tailored treatment to PwMS. They also collaborate with research-active academics to conduct global surveys and better understand the professional experiences of PwMS during the COVID-19 pandemic. Additionally, social workers in primary healthcare settings can provide tailored psychosocial support to PwMS with limited social networks, although the impact on specific psychosocial health measures may vary. Overall, social workers contribute to improving the physical health of individuals living with mental illness by addressing their psychosocial needs and collaborating with other healthcare professionals (Vanden Bossche et al., 2021).

Psychosocial support services and psychological resilience of PwMS may influence the HRQoL of PwMS differently as it was often observed that they reported lower HRQoL than individuals without disabilities (Gottberg et al., 2006).

Furthermore, in some studies, it was also lower compared with those suffering from other chronic illnesses such as epilepsy and diabetes (Hermann et al., 1996). Therefore, based on recommendations from previous literature, the current study examines the relationships between psychosocial support services (Heiskanen & Pietilä, 2009), psychological resilience, and HRQoL among PwMS during the COVID-19 pandemic.

1.2 Background of Study

Chronic disease is an inhabitant health issue and a universal health issue that creates a global health burden, which is now considered the primary cause of death and disability worldwide. It is predicted to primarily cause over three-fourths of all deaths in 2030 (Geneau et al., 2010). Neurological disorders and diseases involving the central nervous system (CNS), including cerebrovascular diseases, traumatic injury, neurodegenerative diseases, and infectious diseases, are types of chronic disorders (Shichita & Yoshimura, 2016).

MS is a chronic disease involving the inflammation of the central nervous system (CNS) with unclear pathogenesis resulting in neurodegeneration and impairment of its function (Popescu & Lucchinetti, 2012; van der Mei et al., 2011). MS causes weakness in physiological status (Russell, White & White, 2006; Veauthier & Paul, 2013) and, consequently, contributes significantly to cognitive dysfunction, limiting PwMS's ability to cope and enjoy life (Guimarãer & Sá, 2012; Rao et al. 1991).

MS leads to considerable changes in PwMS lifestyles. For example, it requires effective strategies for adapting to stress to continue a healthy life, especially when most cases are diagnosed at the peak of productive age (20-40) and significantly affect

raising a family (Dupont, 1997). Furthermore, patients with chronic diseases and disabilities are in greater danger of poor health conditions and unhealthy lifestyles, further affecting the effective management of their permanent status (Froehlich-Grobe et al., 2016). In light of this, researchers assert that in recent years there has been a rise in interest in how individuals with debilitating illnesses can find happiness and fulfilment despite their ailment and the associated difficulties (Kirchner & Lara, 2011). In addition, it was recently confirmed that the coronavirus (COVID-19) pandemic causes risks to chronic disease patients (Silva et al., 2020). Thus COVID-19 is considered one of the challenges PwMS have to deal with, apart from the uncertainty of long-term and progressive disease.

The cause of COVID-19 is a severe acute respiratory syndrome coronavirus type-2 (SARS-CoV-2) that has been categorized as a global pandemic with accelerated dissemination (Jebril, 2020). According to Prompetchara et al. (2020), the genome of COVID-19 is remarkably comparable to the Middle Eastern respiratory syndrome coronavirus (MERS-CoV) and Type-1 virus SARS-CoV that emerged between 2002 and 2003. Those requiring intensive care also have a high rate of mortality when they contract this disease (Zheng et al., 2020).

Consequently, the Centers for Disease Control and Prevention (CDC) designated patients with chronic diseases, disabilities, and those receiving immunotherapy (such as neurological disorders and central nervous system (CNS) diseases, including traumatic injury, cerebrovascular diseases, infectious diseases, and neurodegenerative diseases) as potential high-risk populations for COVID-19 (CDC, 2021; Shichita & Yoshimura, 2016). In addition, because the majority of PwMS are immunomodulatory therapies, theoretically, these PwMS are at a higher risk of having

their lives impacted by widespread pandemics, resulting in the loss of social support, as well as rehabilitation therapies of the cognitive and physical functions, which could increase the level of anxiety and stress felt by these patients (Akhoundi et al., 2020).

People felt fearful, despondent, anxious, and overburdened due to continual alert updates and coverage in the media regarding the spread of the virus (Algahtani et al., 2020). As a result, the COVID-19 pandemic became one of the new challenges affecting coping strategies and potentially disrupting PwMS QoL (Motl et al., 2020). Psychosocial support services consist of strategies provided by healthcare providers (such as CSW and psychologists) to address excessively high, unmanageable stress, anxiety, and continuous extreme arousal, which may be beneficial in stress-adaptive situations (Stankovska et al., 2020). Patients indicated that communication with healthcare providers is the most crucial aspect that helps in enhancing their health status (Al-Doghaither et al., 2000; Weilenmann et al., 2021).

Social workers play an integral role in end-of-life planning and patient outcomes for individuals with MS. They provide psychosocial support to patients and their families in coming to terms with the diagnosis and adjusting to the disease (Pokryszko-Dragan et al., 2020). Additionally, social workers help PwMS in managing the impact of the disease on their social functioning and integration (Persechino et al., 2019). They play a key role in improving the employability of MS patients by identifying and developing management tools, operative procedures, and training programs (Kever et al., 2021). Social support, which is often facilitated by social workers, is associated with better psychological well-being, cognition, and motor functioning in patients with MS. Therefore, social workers are essential in

providing comprehensive care and support to patients with MS, addressing their physical, emotional, and social needs throughout the disease trajectory.

Besides, considerable studies revealed that psychological resilience and coping are personal characteristics constituting strength in stressful life events. Because of the rising prevalence of non-communicable diseases (NCDs) in developing countries over the last decades, the therapeutic framework has been changed to include quality of life (QOL) which has become fundamental in health status (Boutayeb & Boutayeb, 2005). Also known as an essential mediator of psychological well-being, it is positively associated with both psychological and physical well-being by reducing the negative effects of stress, averting mental and physical illnesses, and enhancing the QoL (Zengin et al., 2017).

1.3 Problem Statement

The globe has experienced a noticeable prevalence of chronic diseases within the last century (Raghupathi & Raghupathi, 2018), including MS as a non-communicable chronic disease (Harris, 2019). According to the findings of various studies, MS impacts close to 2.3 million individuals globally, where studies indicate that MS impacts women more often than men by a ratio of 3:1 (Ahmed, 2017; Doshi & Chataway, 2016; Harbo, Gold & Tintoré, 2013). A total of 2,221,188 prevalent MS cases worldwide were diagnosed in 2016, with higher rates in developed nations, corresponding to a 10.4% (9.1 to 11.8) increase in age-standardized prevalence since 1990 (Wallin et al., 2019). Similarly, Kuwait is considered to be among the countries with an outbreak of MS with high risk.

Table 1.1 Distribution of MS prevalence and incident during 1981-2018 in Kuwait

Study period	Source of data	Prevalence per 100,000	Incident per 100,000	References
1981-1983	Neurology & Neurosurgery Center of Kuwait	8.33	-	Al-Din AS, 1986
1993-2000	Multicenter hospital-based	14.77	2.62	Alshubaili et al., 2005
2003 -2011	Multicenter hospital-based	85.05	6.88	Alroughani et al., 2014
2013-2018	Multicenter hospital-based	104.88	6.4	Alroughani et al., 2019

Table 1.1 demonstrates the significant rise in Kuwait's prevalence and incidence rates, revealing the improvement in countrywide case identification and increased awareness and referrals. On the other hand, in the last five years, the disease prevalence has increased 1.6 times, while the incidence has been stable at 6.4 per 100,000 since the previously reported rate. Looking more closely at a study conducted by Alroughani et al. (2019), female patients form 66.8% of the analyzed data based on the gender variable with a ratio of 2.01:1 female to male, while the age-adjusted prevalence in both females and males peaks in the 30–39 and 40–49 age groups, with an overall decrease after the age of 50.

Since MS primarily affects individuals at an early age, it has a considerable impact on both psychological and physical aspects, which does not necessarily reflect passively on individuals' personal and social life (Delaney & Donovan, 2017; Huang et al., 2017; Tauil et al., 2018). Although there may be variances in psychological distress due to the overlapping signs and symptoms of MS, differentiation is still discernible (Minden et al., 1987), the medical condition is firmly placed at the forefront, whilst wellness is effectively pushed to the background, causing patients to experience difficulty in shifting between disease, wellness, and QoL in PwMS (Giovannetti et al., 2017; Zengin et al., 2017), particularly during COVID-19 restricted conditions (Stojanov et al., 2020).

This is taking into consideration that the HRQoL level and coping with the COVID-19 pandemic are distress conditions that depend on the resources available to PwMS. As psychosocial disability remains unexplained solely by MS severity or sociodemographic variables, other factors (including personality traits, optimism, locus of control, and social support) are presumed to influence the adjustment to MS; they contribute to reducing the burden of the disease and enhancing the QoL of PwMS in general (Harper et al., 1986; Bragazzi, 2013).

According to Stojanov et al. (2020), several psychosocial variables affect the health condition and well-being of PwMS and help them adapt to the COVID-19 pandemic. It is fundamental to remember that coping skills to reach an acceptable level in HRQoL depend on various factors. According to Lazarus and Folkman (1984), problem-solving, positive beliefs (a psychological resource), health and energy (a physical resource), social skills (competencies), and environmental resources are factors that help individuals to adapt in their lives. Therefore, Taylor and Stanton (2007) proposed that these adaptive resources are relatively stable individual differences that function as antecedents or factors that directly impact individuals' psychological and physical health. Furthermore, because some support resources are more efficient than others and some individuals have better motivations to use support resources than others, the current research regarded psychosocial support services (as external factors) and psychological resilience (as internal factors) as factors that could influence HRQoL in PwMS during COVID-19 pandemic.

Psychosocial services (professional-patient interactions and communication) manage environmental and social obstacles that prohibit people with disabilities from pursuing healthier lifestyles, influencing the emotions and habits of PwMS and

enhancing HRQoL (Froehlich-Grobe et al., 2016; Ghafari et al., 2015; Kagan, 2008; Lorefice et al., 2018), and found that it benefits the psychological health of PwMS throughout the COVID-19 pandemic (Stojanov et al., 2020). Therefore, by doing so, the physician may facilitate the course of adaptation, activate psychological intervention aimed at the illness depicted by PwMS, and promote greater resilience in the transition between illness and wellness (Giovannetti et al., 2017). It was also found that psychosocial services are closely related to coping strategies (Okanli et al., 2017) and positively impact QoL in PwMS (Costa et al., 2012).

Previous studies found that a successful social work intervention program helped reduce stress and improve self-acceptance (Welch, 1987) and can change the attitudes of the sick for the PwMS (Majernikova et al., 2019). Moreover, a study by Megari (2013) found that integrated patient therapy should include social workers besides physicians to improve HRQoL in patients with chronic disease. A study conducted in Saudi Arabia revealed that patients who received comprehensive social support from healthcare providers manifested a motive toward their daily activity (Hyarat et al., 2018).

According to a study carried out by Alshubaili et al. (2007) in Kuwait, social support may improve the QoL of PwMS. In the same context, performing activities (e.g., endurance, motor problems) in daily living were positively associated with the Physical Health Composite (PHC) and Mental Health Composite (MHC) with a connection to the QoL of PwMS (Abdullah & Bader, 2018). In comparison, dissatisfaction with healthcare services, including rehabilitation services, could lead to exposure to psychosocial issues, and the findings showed a low level of QoL among PwMS (Manee et al., 2013).

Moreover, psychological factors are also influential internal resources in shaping PwMS adaptation, where psychological resilience is recognized as an essential protective factor for coping with both external adversities and physical events arising from the disease (Lemes et al., 2019). PwMS who have positive characteristics (such as self-efficacy) demonstrate more significant levels of psychological resilience, and acceptance across stressful situations, maintain an appropriate functioning level, use more effective coping strategies, and have better functional outcomes of QoL in PwMS (Fayand et al., 2019; Ramírez-Maestre et al., 2014).

According to local experts, MS is considered a new disease in Kuwait. Increased incidence in the recent period is also noticed, especially after the Iraqi invasion in 1990 (Al-Afasy et al., 2012). Since MS has unpredicted intervals in exacerbating disease symptoms or relapse, adapting to MS is complicated. Given the literature reviews in previous studies in Kuwait, the researcher found that studies that dealt with healthcare services, psychological behaviour, and adapting among PwMS were conducted using traditional approaches according to neurologists' views. The majority of prior studies followed a standard conceptual framework in which multiple variables influence HRQoL without taking into account the contribution of additional variables that may moderate this influence (Abdullah & Bader, 2018; Alshubaili et al., 2007; Alshubaili et al., 2008; Manee et al., 2013). Few studies have examined the moderating impact of other variables that may affect the links that exist between HRQoL and the antecedent. (Armbrust et al., 2021; Farran et al., 2016; McCabe, 2006; Kołtuniuk et al., 2021; Shofany, 2017). Different social challenges were faced by PwMS, notably when they were experiencing COVID-19 symptoms or lockdown constraints, which caused PwMS distress (Altunan et al., 2021; Alschuler et al., 2021; Stojanov et al., 2020; Zhang et al., 2021).

MS can negatively affect the QoL in both females and males, but several studies indicated no significant gender differences in the QoL among PwMS (Albuquerque et al., 2015; Alqwaifly et al., 2020; Alshubaili et al., 2007). In contrast, research in the PwMS population reported a lower HRQoL in females than males (Hajian-Tilak et al., 2017; Guo et al., 2012), which is generally related to the menstrual cycle and pregnancy (Elenkov et al., 2001). Males have a lower HRQoL overall, particularly in mental health, physical functioning, emotional well-being, social functioning, and sexual functioning, according to various studies (Biernacki et al., 2019; Casetta et al., 2009; Neto et al., 2019). Consequently, men and women may have distinct HRQoL outcomes. Nevertheless, there is a difference by gender in PwMS's behaviour when receiving psychosocial support services and psychological resilience, both of which impact the HRQL score. For instance, according to a high self-efficacy effectuation of treatment control and realism in females, they achieved significantly higher self-management scores (Wilski & Tasiemski, 2016a), which correlated more with HRQoL (Wilski & Tasiemski, 2016b).

Since CSW practices are based on the uniqueness of the individual (Campbell & Baikie, 2012), it can help to explore patients' experiences of adjustment to MS regarding gender variables can lead to valuable insights for people around them, especially their families and healthcare professionals to support them (Brooks, Matson, 1982). These interventions are founded on a multidisciplinary team approach and integrate theories from diverse methodologies. Through the provision of support and guidance, social workers facilitate patients' navigation of the challenges associated with living with MS, ultimately enhancing their overall well-being across gender lines.

Even though previous research may have documented noteworthy findings, there appears to be an overall absence of comprehension of HRQoL among PwMS and those who receive healthcare services in Kuwait MOH. In addition, there is a dearth of sufficient understanding regarding the significance of psychosocial service and psychological resilience regarding the prediction of HRQOL dimensions during the COVID-19 pandemic among PwMS in Kuwait. Although these concepts have been continuously investigated, albeit inconsistently, no studies have examined the importance of these concepts concurrently, particularly in Kuwait. Therefore, Not much is documented about the psychosocial support services protocol utilized by the Kuwait Ministry of Health (MOH) during the COVID-19 outbreak and the psychological resilience of PwMS to enhance HRQoL among Kuwaities who are PwMS.

Due to this gap, this study seeks to investigate the relationships between healthcare provider engagement through psychosocial support, PwMS's psychological resilience, and their impact on QoL according to gender as a moderator. Moreover, the researcher applied variance-based structural equation modeling (SEM) using the partial least squares (PLS) path modeling method to test single relationships between current study variables and those considered methodology gaps.

Therefore, the purpose of the present research is to investigate the impacts of psychosocial support services and psychological resilience on HRQoL in PwMS in the State of Kuwait in terms of gender differences.

1.4 Aim of the Study

Examining the effects of psychosocial support services and psychological resilience on health-related quality of life in PwMS during the COVID-19 pandemic

in Kuwait, with gender as a moderator, is the primary objective. To achieve the stated objectives, the research objectives are presented as follows:

1.5 Objectives of the Study

1. To investigate the relationship between psychosocial support services and overall QoL among PwMS in Kuwait.
2. To investigate the relationship between psychosocial support services and HRQoL among PwMS in Kuwait.
3. To determine the relationship between psychological resilience and the overall QoL among PwMS in Kuwait.
4. To determine the relationship between psychological resilience and HRQoL among PwMS in Kuwait.
5. To determine the difference between males and females in the effects of psychosocial support services on overall QoL among PwMS in Kuwait.
6. To determine the difference between males and females in the effects of psychosocial support services on HRQoL among PwMS in Kuwait.
7. To determine the difference between males and females in the effects of psychological resilience on the overall QoL among PwMS in Kuwait.
8. To determine the difference between males and females in the effects of psychological resilience on HRQoL among PwMS in Kuwait.

1.6 Questions of the Study

1. Are psychosocial support services positively related to overall QoL among PwMS in Kuwait?
2. Are psychosocial support services positively related to HRQoL among PwMS in Kuwait?

3. Is psychological resilience positively related to overall QoL among PwMS in Kuwait?
4. Is psychological resilience positively related to HRQoL among PwMS in Kuwait?
5. Is there a significant difference between males and females in the effects of psychosocial support services on overall QoL among PwMS in Kuwait?
6. Is there a significant difference between males and females in the effects of psychosocial support services on overall QoL among PwMS in Kuwait?
7. Is there a significant difference between males and females in the effects of psychological resilience on overall QoL among PwMS in Kuwait?
8. Is there a significant difference between males and females in the effects of psychological resilience on HRQoL among PwMS in Kuwait?

1.7 Hypotheses of the Study

1. Psychosocial support services are positively related to overall QoL among PwMS in Kuwait.
2. Psychosocial support services are positively related to HRQoL among PwMS in Kuwait.
3. Psychological resilience is positively related to overall QoL among PwMS in Kuwait.
4. Psychological resilience is positively related to HRQoL among PwMS in Kuwait.

5. There is a significant difference between males and females in the effects of psychosocial support services on overall QoL among PwMS in Kuwait.
6. There is a significant difference between males and females in the effects of psychosocial support services on QoL among PwMS in Kuwait.
7. There is a significant difference between males and females in the effects of psychological resilience on overall QoL among PwMS in Kuwait.
8. There is a significant difference between males and females in the effects of psychological resilience on HRQoL among PwMS in Kuwait.

1.8 Significance of the Study

The present study has been divided into two main categories of significance: theoretical and practical.

1.8.1 Theoretical Significances

The theoretical significance relates to the anticipated contribution of the study to the existing corpus of knowledge regarding HRQoL and the variables that impact it. In this regard, the findings of this study will provide proof to support the influence of psychosocial services and psychological resilience on HRQoL among PwMS, thereby adding to the existing body of literature. The underlying HRQoL in PwMS has been explained by various models that take into consideration the diverse individual, social, and communal circumstances (Alqwaifly et al., 2020; Witt, 2020; Zhang et al., 2021).

Existing empirical studies have investigated a variety of factors that influence HRQoL, with the majority of studies focusing on fatigue, social support, perceived

stress, depression, and socioeconomic status. This implies that less consideration has been given to other psychosocial support services and psychological resilience as protective factors. According to the perspective of PwMS, it is preferable to comprehend resilience and receive psychosocial support services. This study, therefore, bridges the divide by incorporating additional psychosocial support services, such as assessing, advising, agreeing, facilitating, coordinating, and psychological resilience.

In addition, MS's advancement and recurrence are unpredictable and may be influenced by variables such as stressor chronicity, frequency, severity, and type, as well as patient characteristics: depression, personality, locus of control (LOC), optimism, and perceptions of psychosocial support services. These theories help understand the risk or protection factors and main predictors of HRQoL in PwMS. One explanation concerning LOC in understanding PwMS's behaviours, including a greater drive to pursue health-related facts, treatment adherence, and coping strategies, is that it is crucial in managing the MS course smoothly.

In various respects, the current study's findings will corroborate the LCT. The present investigation will initially verify the major connections between psychological resilience (internal locus of control) and health-related quality of life based on social learning and the metatheory of resilience and resiliency (MRR), particularly from a psychoneuroimmunological standpoint. Resilience is a more accurate marker of HRQoL than the medical condition itself, and it acts as a mediator between neurological disability (mood disorders) and HRQoL, according to Dymecka and Gerymski (2020). Consequently, the present results will verify and expand LCT by

establishing that HRQoL is established by resilient individuals with an internal LCT process (resilience), thereby extending the current research on empirical evidence.

Second, the current study will show the validity of LCT by demonstrating that PwMS are in a position external to the psychosocial support services they receive, such as assessing, advising, agreeing, facilitating, and coordinating. These four psychosocial services will be analyzed as interrelated constructs to corroborate the relationship between psychosocial support variables and HRQoL. Consequently, the current study is one of the few that assesses the psychosocial support service categories as distinct features concerning their impact on HRQoL among PwMS in Kuwait.

Regarding the current study findings, the results of this study will support CSW in their efforts to assist PwMS by incorporating social work theories and practice models to customize intervention plans. For instance, the utilization of psychodynamic theory, which aids in comprehending the theories embraced in this study (such as the LCT, the metatheory of resilience and resiliency, and the self-determination theory), can elucidate the internal processes that PwMS employs to govern their external behaviour. Additionally, applying the problem-solving model allows the CSW to collaborate with the PwMS to identify a problem, develop an action plan, and implement the solution together.

The current study will verify LCT by demonstrating the moderating impact of gender variables in the association between psychosocial support services and psychological resilience in terms of the HRQoL of PwMS. In terms of requirements for support, gender variables showed different experiences of living with MS (Upton & Taylor, 2015). However, there is a scarcity of studies reporting that gender is a predictor of HRQoL in PwMS (Ploughman et al., 2018). Thus, the gender moderating

role, especially in the relationship between HRQoL and its antecedents (psychosocial support services & psychological resilience), has so far been neglected. In line with this, Timkova et al. (2021) suggested focusing on possible gender differences when investigating psychological well-being among PwMS. Consequently, the present research investigates the moderating effect of the gender variable on the association between the antecedent factors and HRQoL in PwMS.

In addition, the present study utilized Partial Least Squares Structural Equation Modelling (PLS-SEM) and the Multigroup Analysis (MGA) technique for group analysis in HRQoL in evaluating gender groups and determining which psychosocial support services and psychological resilience factors are more accurate in predicting HRQoL according to the gender variable. Consequently, the current study will be considered one of the initial empirical investigations to employ the MGA approach for evaluating the moderating effect of gender in HRQoL studies, especially in Kuwait, and represents a substantial methodological contribution to the HRQoL research literature in PwMS.

1.8.2 Practical Significances

As previously stated, the standard of healthcare services provided to locals and non-citizens in different medical disciplines has increased in Kuwait. In contrast, the availability of services and benefits is contingent on several variables. The debilitating traits of the disease have a significant impact on the lives of PwMS, including their psychological, social, and physical well-being, all of which are essential components of HRQoL and may be compounded by illness progression and depression.

The aftermaths of the COVID-19 pandemic and its restrictions on the population's mental state are still unknown and are considered a new research field.

Consequently, interdisciplinary mental health science must comprehend the magnitude of such repercussions in various segments of the population, identifying the most impacted and determining how to mitigate, hinder and treat any additional morbidity associated with similar circumstances (Hotopf et al., 2020). The current study intends to identify and extend the psychosocial aspects of PwMS by concentrating on closing the disparity between psychosocial services and psychological resilience, which are influencing adaptation and HRQoL among PwMS during the COVID-19 pandemic.

The results of this study suggest that the enhancement of psychosocial support services in healthcare facilities improves HRQoL not only for those with MS but for patients with chronic diseases in general. From a social work perspective, social workers in healthcare facilities can make considerable efforts in addressing the psychosocial needs of individuals diagnosed with MS and their respective families by offering psychosocial support services that take into account the distinctive needs and obstacles faced, ultimately enhancing their mental well-being and overall QoL. Social workers could offer comprehensive psychosocial support services, encompassing evaluations and suggestions to enhance compliance with treatment plans, in addition to assisting in improving the HRQoL of patients with MS.

Considered outcomes include the following: the quality of the specialists' psychosocial services, and the extent to which the PwMS benefit from it according to their perspective, the level of psychological resilience, and its role in motivation to respond and interact with the interdisciplinary team, general psychological resilience practised by the PwMS and the level of QoL among PwMS during the COVID-19 pandemic.

Kuwait is classified as a world centre for humanity and His Late Highness Sheikh Sabah Al-Ahmad Al-Jaber Al-Sabah was given the title the 'Humanitarian Leader' in 2014 by the United Nations because of his remarkable acts of human kindness and generosity and exemplary humanitarian leadership (United Nations, 2014). As a result, Kuwait has a policy of providing comprehensive humanitarian services, especially in healthcare, that cover psychological and physical needs, particularly during the COVID-19 pandemic, by affording official caring facilities and organizing vaccine campaigns for national and non-national citizens (WHO, 2021). This study will encourage physicians and other interdisciplinary team members, particularly CSW, to understand how PwMS think, feel, and respond to everyday stress events and generate effective intervention strategies to benefit the PwMS.

By looking more closely at the benefits of results for CSW, the results will help CSW assess the needs of each PwMS and keep detailed records of patients' progress in the adapting process with MS. In brief, CWS will act as an advocate on behalf of the patient or family members by negotiating with other members of the MS's healthcare team and connecting PwMS with community and government resources regarding financial or insurance issues. Besides, CSW can provide the following:

1. Provide data based on evidence regarding the consequences of COVID-19 Pendamic on PwMS's HRQoL.
2. Explore coping factors with psychological stresses (such as depression and anxiety)

3. Determine support services for psychosocial and mental health in challenging situations such as the COVID-19 pandemic or comparable circumstances.
4. Tailor intervention plans that are gender-specific to meet patients' needs better.
5. Help CSW to learn lessons about emergency preparedness and debates about the advantages of psychosocial support service initiatives to mitigate the effects of COVID-19 and comparable crises affecting PwMS.

1.9 Scope of the Study

The current research is designed using quantitative, deductive, and descriptive-correlation/cross-sectional approaches. The primary objective of the research is to investigate the HRQoL levels of PwMS in Kuwait during the COVID-19 pandemic constraints. Furthermore, the study investigates the connections between Kuwait MOH's psychosocial services and psychological resilience adopted by the PwMS. It also examines the HRQoL levels among PwMS who receive healthcare services in Kuwait MOH during the COVID-19 pandemic. The study targeted PwMS aged (21) and above with different MS types from both genders.

As CSW is derived from Social Work School, following the proposed research concept is limited to identifying the influences of independent variables among a sample of PwMS in Kuwait during the COVID-19 pandemic. Consequently, the research proceeded with the CSW principles to interpret the findings by adopting system theories in social work. These theories indicate that individuals do not operate

separately but grow and develop in interaction with their internal and social environment.

According to CSW principles, CSW works closely with outpatient clinics, hospitals, community health agencies, and long-term care institutions (Ali & Rafi, 2013). Consequently, a CSW can address the bio-psychosocial-spiritual aspects of a challenged individual and assess the resilience and fortitude of the patients, their social support systems, and their family members to aid the patients in independently solving their challenges (Hassan, 2016).

Unified behavioural, cognitive, and social learning theories were adopted to understand, and predict human behaviours and explain social interactions that lead to various outcomes. However, the multidisciplinary team can consider the findings when tailoring intervention plans for PwMS, especially in unpredictable circumstances, such as lockdowns and curfew, that cause stress on PwMS. Therefore, the hypothesis, theories, instruments, and methodology were selected to consider proper and epistemological design to achieve the study's primary aim.

1.10 Definition of Terms of the Study

In this section, the essential terms are conceptually and practically defined. The conceptual definitions are presented based on the clarifications of the specific researchers involved, whereas the operational definitions are developed specifically for the current research by the researcher.

1.10.1 Multiple Sclerosis

MS is defined as an autoimmune disease that affects the central nervous system and is considered a chronic and lifelong illness that may cause disability and impair

QoL (Solheim et al., 2017). In the current study, PwMS refers to all patients diagnosed with MS receiving services in Kuwait MOH.

1.10.2 Psychosocial Support Services

Individuals, families, and communities are strengthened through the provision of psychosocial support services. Psychosocial support promotes the restoration of social cohesion and infrastructure by respecting the independence, dignity, and coping mechanisms of individuals and communities (International Federation of Red Cross and Red Crescent Societies-IFRC, 2009). Therefore, psychosocial support services in this study refer to the first independent variable (IV1).

1.10.3 Psychological Resilience

Psychological resilience is the capacity of an individual to recover from a traumatic experience or to maintain psychological strength in the face of adversity (De Terte**,** Stephens & Huddleston, 2014). Psychological resilience in the current study refers to the second independent variable (IV2).

1.10.4 Health-Related Quality of Life

HRQoL can be defined as the perceived functional impact of a patient's illness and its treatment (Schipper, 1990). In the current study, HRQoL will refer to a dependent variable (DV_2).

1.11 Organization of Chapters

This sub-title presents the sequence of the current study's chapters. Chapter 1 presents and discusses the statement of problems, the study objectives, study questions, hypotheses, the significance of the study, and its scope. The remaining chapters of this study are organized in the following sequence. Chapter 2 critically reviews past literature on COVID-19, MS, HRQoL, psychosocial support services, and psychological resilience. Moreover, it examines previous studies, related theories, and the formulation of the theoretical framework. Chapter 3 explains both the research philosophy and methodology, delineating the sampling process, the measurement instruments that will be used, and the statistical analysis.

Chapter 4 presents the findings of the study and includes data analysis, statistical tests, graphs, and tables and has been divided into sections based on the research hypotheses. Chapter 5 interprets and discusses the results in the context of the existing literature, the implications of findings, identifies patterns and relates them to the current study objectives, and also discusses limitations during the present study. Moreover, this chapter includes the conclusion, summarizes the recent study findings, future study directions, and any recommendations and implications based on current study findings.