JOURNAL OF LIFESTYLE
& SDG'S REVIEW
e-ISSN: 2965-730X

THE INTERPLAY BETWEEN SOCIAL SUPPORT, EMOTIONAL DISTRESS, AND PSYCHOSOCIAL QUALITY OF LIFE AMONG CANCER SURVIVORS: ADVANCING PROGRESS TOWARD SDG 3

Flemmings Fishani Ngwira[1]
Wellman Kondowe [2]
Jessie Mkandawire [3]

ABSTRACT

Objective: Cancer survivors face unique psychosocial stressors which impact their health and well-being. This study explores the prevalence and effects of perceived social support and emotional distress on survivors' psychosocial quality of life (QoL) in achieving sustainable development goal (SDG) 3: good health and well-being.

Theoretical Framework: This study employs the social support theory which emphasizes the importance of social support systems in improving psychological well-being and coping with stress. The study further uses the stress and coping theory which focuses on how individuals cope with stress.

Method: This study recruited 120 cancer patients receiving treatment at Queen Elizabeth Central Hospital and Kamuzu Central Hospital. Perceived social support and emotional distress were measured using the Berlin Social Support Scales (BSSS) and the Depression Anxiety and Stress Scales (DASS-21). Data analysis was performed using IBM® SPSS® Statistics version 22.

Results and Discussion: Survivors reported higher emotional support but lower informational support, with moderate levels of instrumental support, anxiety, depression, and QoL. Social support was positively linked to QoL, while emotional distress negatively impacted it. Additionally, anxiety and depression partially mediated the relationship between social support and QoL.

Research Implications: This study emphasizes the importance of social support in improving cancer survivors' quality of life and reducing emotional distress. It suggests that healthcare providers should focus on both emotional and instrumental support to better address survivors' mental health needs.

Originality/Value: The study highlights the greater importance of social support, and by focusing on cancer survivors in Malawi, the research contributes important regional data to the global understanding of cancer survivorship.

Keywords: cancer survivors, social support, emotional distress, quality of life, Sustainable Development Goal (SDG) 3, Sustainable Development Goals (SDGs).

Received: Aug/23/2024
Accepted: Oct/25/2024
DOI: https://doi.org/10.47172/2965-730X.SDGsReview.v5.n02.pe02653

---

[1] Malawi University of Business and Applied Sciences, Blantyre, Malawi.
E-mail: fngwira@mubas.ac.mw
[2] Mzuzu University, Mzuzu, Malawi. E-mail: welkondowe@gmail.com
[3] Malawi University of Business and Applied Sciences, Blantyre, Malawi.
E-mail: jngwira1@mubas.ac.mw

1 INTRODUCTION

Cancer has become one of the major public health problems in Malawi and its trend is increasing at an alarming rate (Ministry of Health, 2017, Ngwira *et al*., 2020; The Nation Online, 2019). For instance, a recent news publication quotes Dr Masamba, Head of Oncology at Queen Elizabeth Central Hospital (QECH), lamenting that ‘QECH, being a hospital that sees the largest number of at least 200 cancer patients in a day, is facing challenges of limited space to accommodate patients, inadequate staff, and shortage of drugs (Nzangaya, 2024). As the number of cancer cases continues to grow, the number of people living with cancer (operationally defined here as *cancer survivors*) keeps on burgeoning. Cancer survivors experience several psychosocial stressors that need to be dealt with to ensure their quality of life (QoL). They experience physical stressors such as permanent health impairment and disability, pain, nausea and fatigue (National Cancer Institute, 2023a). Research also reports that survivors are also likely to experience social problems concerning employment, interpersonal relations, family and the cost of health care (IOM, 2008; Šprah & Šoštarič, 2004). These stressors eventually lead them to suffer psychologically, experiencing anxiety and depression (Jacobsen & Andrykowski, 2015).

Thus, the focus on holistic cancer treatment should not only be on illness control but also the general well-being of the patients. Quality of life is the measure of patients’ perception of their well-being. It is a multi-dimensional measure of the psychological, physical, role, cognitive and social well-being of an individual (Ng *et al*., 2015). Our major focus regarding cancer survivors’ QoL, however, was on its psychosocial aspects as opposed to the somatic elements. In cancer care, perceived psychosocial QoL may be affected by emotional distress as well as perceived social support. On one hand, research posits that emotional reactions to the disease, such as having anxiety and depression negatively correlate with QoL in cancer survivors (Ng, *et al*., 2015). On the other hand, social support is particularly important in enhancing patients’ perceived QoL. Social support has been associated with the increased psychological well-being of an individual; in stressful times, it has been found to help people reduce psychological distress (Azevedo *et al.*, 2017); improve emotion-focused coping strategies (Knobf, 2007); and promote psychological adjustment (Lehto-Jarnstedt *et al.*, 2004).

Emotional distress in a medical context may be defined as a highly unpleasant emotional reaction to some life-threatening situations such as a diagnosis of cancer. In cancer care, these emotional reactions negatively impact compliance with medical treatment (DiMatteo, 2004), bring a risk of mortality (Linden *et al.*, 2012), and reduce cancer survivors' QoL (Nurasyikin *et al.*, 2018). Common psychological morbidities among cancer survivors are anxiety and depression (National Cancer Institute, 2023b; Nurasyikin *et al.*, 2018). Anxiety, the response to a perceived threat, is high soon after the onset of cancer-related symptoms and during the evaluation phases of the disease (Jacobsen & Andrykowski, 2015; Knobf, 2007). Depression, a feeling of sadness that makes one think there's no hope for the future, emanates from hopelessness and tends to develop gradually over time (Knobf, 2007). Coupled with social problems concerning financial well-being, cost of health care, employment (Šprah & Šoštarič, 2004), housing, childcare and family worries (IOM, 2008), anxiety and depression can be a great source of suffering thereby affecting survivors' QoL (Conley *et al.*, 2016).

Social support is defined as a dynamic process within relationships where individuals provide resources (emotional, informational, or instrumental) that help others cope with stress (Feeney & Collins, 2015). Emotional support involves communication skills of caring and concern, sending implicit messages of empathy, reassurance and comfort. Helpful emotional support can come from both healthcare providers and caregivers (Tamar *et al.*, 2015). Informational support involves offering cancer patients clear communication and guidance on managing their illness and coping with its symptoms. Helpful informational support is mostly provided by healthcare providers (Al-Azri *et al.*, 2014). Instrumental support refers to the provision of tangible resources, such as assistance with healthcare costs or household chores, typically offered by family and friends (DiMatteo, 2004). Social support reduces stress and depression and helps patients feel valued and loved, ultimately improving their quality of life (Zhou *et al.*, 2022). Conversely, a lack of adequate social support can lead to negative outcomes.

Very little is known about how cancer survivors in Malawi perceive their social support, emotional distress, and psychosocial quality of life. Most previous related studies in the country researched cancer awareness (eg. Ngwira *et al.*, 2020), cancer screening services (eg. Msyamboza *et al.*, 2016), incidence (eg. Moyo *et al.*, 2021), or treatment (eg. Mwafongo *et al.*, 2014). It was, therefore, important to investigate the interplay between social support, emotional distress and psychosocial QoL among cancer survivors. The purpose of the current study, therefore, was two-fold. First, the study aimed to investigate the levels of cancer survivors' perceived social support from healthcare providers and caregivers, emotional distress, and perceived psychosocial QoL among cancer survivors in Malawi. Second, the study aimed to investigate the effect of social support and emotional distress on cancer survivors' perceived quality of life.

2 THEORETICAL FRAMEWORK

This study employed two theories, namely, social support and stress and coping theories. Social support theory, as noted by Kort-Butler (2017), originated from the work of Don Drennon-Gala and Francis Cullen, who integrated insights from various theoretical traditions. Social support theory highlights the vital role of social networks in enhancing psychological well-being and managing stress. Drageset (2021) defines social support as the perception or experience of being cared for, valued, and included in a supportive social network. The theory underscores the importance of emotional, informational, and practical assistance that social connections provide, particularly during periods of stress. For cancer patients, these support systems can include family, friends, and institutional resources. Research shows that perceived social support is especially crucial in improving the quality of life (QoL) for cancer patients, as it not only helps them cope with the emotional and physical challenges of the disease but also enables them to better manage the side effects of treatment (Rasmussen *et al.*, 2021).

Additionally, this study utilized stress and coping theory, which explores how individuals perceive and manage stressful situations. Developed by Lazarus and Folkman (1984), the theory posits that stress arises when individuals perceive a situation as overwhelming or exceeding their resources to cope. Coping strategies, therefore, are crucial for mitigating the negative effects of stress. These strategies are typically categorized into two main types: problem-focused coping, where individuals take active steps to address the source of stress, and emotion-focused coping, where individuals seek to regulate their emotional response to the stressor (Folkman, 2022). In this study, social support is conceptualized as a key coping resource that functions in both domains. It acts as emotion-focused coping when it provides emotional comfort, empathy, and a sense of belonging, helping individuals manage their emotional reactions to stress. Simultaneously, social support can also be problem-focused when it involves providing practical assistance or information that directly addresses the source of the stress. For cancer patients, social support from family, friends, and healthcare providers is invaluable, offering both emotional reassurance and tangible resources to cope with the physical, emotional, and psychological challenges of the disease (Zhou *et al.*, 2022).

3 METHODOLOGY

3.1 DESIGN AND PARTICIPANTS

This study employed a cross-sectional design utilizing quantitative methods for data collection and analysis. The study recruited both men and women aged 18 and above, who had been diagnozed with any type of cancer within a one-year period and were receiving treatment at either Queen Elizabeth Central Hospital (QECH), the primary referral hospital in Blantyre, or Kamuzu Central Hospital (KCH), the main referral hospital in Lilongwe. Patients in critical condition were excluded from the study.

3.2 DATA COLLECTION TOOLS

To assess perceived social support, part of the Berlin Social Support

Scales (BSSS) questionnaire, previously standardized was employed (Schwarzer & Schulz, 2013), The sub-scale for 'perceived social support' includes categories for perceived emotional and instrumental support, each comprising four items. Four related items examining perceived informational support were added to the sub-scale. Second, part of a previously validated and published Depression Anxiety and Stress Scales (DASS-21) questionnaire (Antony *et al.*, 1998) was used to measure patients' anxiety and depression levels. DASS-21 has 21 items but for this study, however, stress was excluded from the questionnaire, therefore the questionnaire had 14 items. In addition to 14 items, 3 items assessing survivors' QoL were added. In total, participants responded to 29 items measuring their perceived social support, anxiety and depression levels, and perceived psychosocial QoL. All the items assessed the study constructs on a 5-point Likert scale.

3.3 PROCEDURE

Data for this study was collected between March and April 2024, in the two selected first-tier referral hospitals of QECH and KCH. First, approval to conduct this research was sought from the National Health Sciences Research Committee (NHSRC), which is a government-run national review board for health-related research in Malawi. Second, researchers sought permission from the hospital officials. Using random sampling, participants were recruited and given the chance to provide consent and for those who accepted to take part in the survey, a separate room was secured within the hospitals where they were interviewed. A short 7-minute survey, which was conducted in participants' local language (Chichewa), was used. The questionnaire was administered by researchers trained by oncology professionals, who provided explanations for any unclear cancer-related terms and expressions in the participants' local language.

3.4 DATA ANALYSIS

Data analyses for the study were done using IBM® SPSS® statistics version

22. Prior to the actual data analysis, the collected data were screened for accuracy. To ensure the instruments' internal consistency, reliability analysis using Cronbach's alpha was calculated and reported. Pearson correlations were calculated to establish the association between variables assessed in the study. Descriptive statistics for all the tested variables were performed, and Mean and Standard Deviation for all demographic sub-groups were calculated. To test if there were disparities in the study variables among population sub-groups, independent samples *t*-test and the Analysis of Variance (ANOVA) were used ($p < 0.05$). Social support and emotional distress variables were tested using mediation analysis to examine their effect on the survivors' perceived QoL.

4 RESULTS AND DISCUSSION

4.1 RESULTS

A total number of 120 cancer survivors participated in this study. On gender, 45.8% were male participants, so with those from urban (45.8%). The age-range had a fair distribution: 18-30 years (20.8%), 31-40 years (26.7%), 41-50 years (25.8%), and 50 years and above (26.7%). On education levels, 10.8% attended no formal education, 63.3% primary, 15.8% secondary and 10% tertiary education. Regarding marital status, 25.5% were single, 10% were divorced, 68.3% were married and 9.2% were widowed. Concerning employment status, 54.2% were unemployed, 10% employed, 29.2% self-employed and 6.6% were still at school.

4.1.1 Descriptive and Pearson Correlation Statistics

The instrument achieved an overall internal reliability of Cronbach alpha (α) of 0.80 for social support (with emotional support $\alpha = 0.81$; instrumental support $\alpha = 0.78$, and emotional support $\alpha = 0.71$), α of 0.80 for anxiety, and α of 0.75 for depression. Quality of life achieved an alpha level of 0.73. Mean scores and standard deviations of study variables based on the sample's demographic characteristics are presented in Tables 2a and 2b. Table 3 presents descriptive statistics and Pearson correlations analysis for all the study's variables. Pearson correlation results showed that there were significant positive relationships within all three perceived social support variables and quality of life and between the emotional distress variables. However, negative relationships were observed between the emotional distress variables and all the other variables of perceived social support and quality of life. Strong correlations (>0.60) were observed among most pairs suggesting shared variability between the concepts.

Table 1

Mean scores and Standard Deviations of study variables by gender, age-range and education (n = 120)

	Gender				Age-range								Education							
Variable	Male		Female		18-30yrs		31-40yrs		41-50yrs		51 & above		None		Primary		Secondary		Tertiary	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
1. Emotional support	3.49	1.32	3.31	1.36	2.88	1.36	3.81	1.23	3.58	1.26	3.19	1.38	3.08	1.32	3.38	1.34	3.47	1.50	3.75	1.14
2. Instrumental support	3.00	1.15	2.86	1.34	2.52	1.42	3.28	1.17	3.23	1.20	2.59	1.13	2.46	0.66	2.88	1.26	3.00	1.45	3.58	1.24
3. Informational support	2.64	1.32	2.74	1.29	2.44	1.39	3.16	1.35	2.55	1.21	2.56	1.22	2.69	1.32	2.53	1.21	2.95	1.51	3.33	1.44
4. Anxiety	2.75	0.99	3.28	1.05	3.28	1.28	2.75	1.16	2.87	0.85	3.28	0.85	2.77	1.17	3.14	1.03	3.00	1.15	2.67	0.89
5. Depression	2.76	1.78	3.29	1.68	3.76	1.67	2.38	1.60	2.71	1.88	3.50	1.52	3.38	1.71	3.22	1.74	2.68	1.77	2.17	1.59
6. Quality of life	3.02	1.22	2.98	1.29	2.52	1.23	3.41	1.32	3.06	1.12	2.90	1.25	2.62	0.51	2.89	1.27	3.26	1.48	3.67	1.15

Table 2

Mean scores and Standard Deviations of study variables by residence, marital status and employment (n = 120)

	Residence				Marital status								Employment							
Variable	Urban		Urban		Single		Divorsed		Married		Windowed		Unemployed		Employed		Self-emplyd		Still@school	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
1. Emotional support	3.95	1.22	2.92	1.25	3.47	1.60	3.75	1.48	3.41	1.23	2.73	1.56	3.18	1.35	2.92	1.16	3.97	1.07	3.25	1.91
2. Instrumental support	3.38	1.35	2.54	1.03	3.53	1.36	3.33	1.37	2.80	1.23	2.55	0.93	2.63	1.19	2.58	1.08	3.46	1.17	3.50	1.60
3. Informational support	3.42	1.18	2.08	1.07	2.73	1.71	2.67	1.15	2.71	1.26	2.55	1.29	2.62	1.17	2.00	1.35	2.97	1.27	3.13	2.03
4. Anxiety	2.85	1.08	3.18	1.01	2.67	1.82	2.67	0.98	3.09	1.11	3.55	0.69	3.17	1.14	3.00	1.13	2.83	0.92	2.88	0.64
5. Depression	2.20	1.56	3.77	1.57	2.27	1.75	3.00	1.95	3.08	1.71	3.91	1.51	3.38	1.64	3.08	1.88	2.49	1.77	2.75	1.91
6. Quality of life	3.62	1.21	3.48	1.05	3.40	1.40	3.17	1.70	2.95	1.21	2.64	0.81	2.80	1.18	2.42	1.16	3.51	1.12	3.25	1.91

Table 3

Descriptive statistics and Pearson correlations analysis among all study variables (n = 120)

Variable	*Mean*	*SD*	1	2	3	4	5	6
1. Emotional support	3.39	1.34	1					
2. Instrumental support	2.93	1.26	0.80**	1				
3. Informational support	2.69	1.30	0.61**	0.54**	1			
4. Anxiety	3.03	1.05	-0.65**	-0.64**	-0.45**	1		
5. Depression	3.05	1.74	-0.80**	-0.77**	-0.56**	0.65**	1	
6. Quality of life	3.00	1.26	0.75**	0.77**	0.56**	-0.45**	-0.78**	1

** Correlation is significant at *p* <0 .001 level (2-tailed)

4.1.2 Perceived Social Support, Quality of Life and Emotional Distress

The study used a one-sample *t*-test to further determine whether patients perceived high or low social support, quality of life and emotional distress. Each variable was measured on a test value of 3.0 (a median on a 5-point Likert scale). A score significantly lower than 3.0 meant that the patients perceived the construct to be low while a significantly higher than 3.0 meant that the patients perceived the construct to be high. Table 4 shows one-sample *t*-test results, and from the results, patients perceived high emotional support and low informational support. All other variables were perceived to be neither high nor low statistically ($p < 0.05$).

Table 4

Patients' social support, quality of life and emotional distress (n = 120; test value = 3)

Variable	Mean	*SD*	*t*(119)	*p* - value
1. Emotional support	3.39	1.34	3.21	< 0.05
2. Instrumental support	2.93	1.26	-0.65	= 0.56
3. Informational support	2.69	1.30	-2.60	< 0.05
4. Anxiety	3.03	1.05	0.35	= 0.73
5. Depression	3.05	1.74	0.31	= 0.75
6. Quality of life	3.00	1.26	0.00	= 1.00

4.1.3 Disparities Among Demographic Characteristics

Disparities concerning study variables between male and female patients, and between patients from urban and rural residents were measured using independent samples *t*-tests (see Table 5). Results revealed that compared with male participants, females reported higher levels of anxiety ($p < 0.05$) and urban residents reported higher levels of emotional, instrumental and informational support, and quality of life than their rural counterparts ($p < 0.001$); on the other hand, rural residents reported higher levels of depression than urban residents ($p < 0.001$). One-way analysis of variance (ANOVA) was also conducted to compare the variables among the four sub-categories within age-range, education, marital status and employment status sub-groups.

Significant results were observed on age-range and employment status (see Table 6).

Table 5

t-test results showing gender and place of residence differences (n = 120)

Variable Dimensions of satisfaction	Male *M*	*SD*	Female *M*	*SD*	*t*	df	*p-value*	Urban *M*	*SD*	Rural *M*	*SD*	*t*	df	*p-value*
1. Emotional support	3.49	1.32	3.31	1.36	0.705	118	0.457	3.95	1.22	2.92	1.25	4.500**	118	0.000
2. Instrumental support	3.00	1.15	2.86	1.34	0.559	118	0.550	3.38	1.35	2.54	1.03	3.868**	118	0.000
3. Informational support	2.64	1.32	2.74	1.29	-0.427	118	0.670	3.42	1.18	2.08	1.07	6.537**	118	0.000
4. Anxiety	2.75	0.99	3.28	1.05	-2.836*	118	0.005	2.85	1.08	3.18	1.01	-1.726	118	0.087
5. Depression	2.76	1.78	3.29	1.68	-1.667	118	0.098	2.20	1.56	3.77	1.57	-5.479**	118	0.000
6. Quality of life	3.02	1.22	2.98	1.29	0.415	118	0.885	3.62	1.21	3.48	1.05	5.540**	118	0.000

** = $p < .001$, * = $p < .05$

Table 6

ANOVA results showing demographic differences of study variables (n = 120)

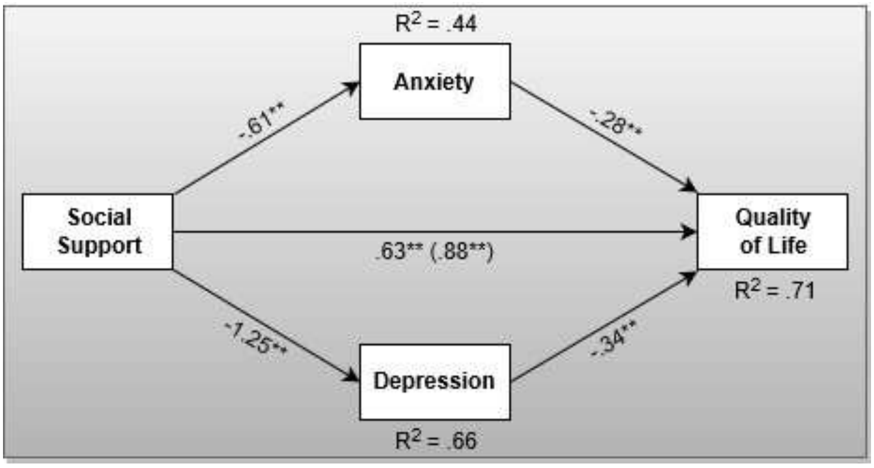
Group	Variable	Characteristics	Number	*M*	*SD*	F	*p*-value
Age-range	Emotional support	18-30 years	25	2.88	1.36	F(3,116) = 2.86	<0.05
		31-40 years	32	3.81	1.23		
		41-50 years	31	3.58	1.26		
		51 years and above	32	3.19	1.38		
	Instrumental support	18-30 years	25	2.52	1.42	F(3,116) = 3.22	<0.05
		31-40 years	32	3.28	1.17		
		41-50 years	31	3.23	1.20		
		51 years and above	32	2.59	1.13		
	Depression	18-30 years	25	3.76	1.67	F(3,116) = 4.44	<0.05
		31-40 years	32	2.38	1.60		
		41-50 years	31	2.71	1.88		
		51 years and above	32	3.50	1.52		
Employment	Emotional support	Unemployed	65	3.18	1.35	F(3,116) = 3.45	<0.05
		Employed	12	2.92	1.16		
		Self-employed	35	3.97	1.07		
		Still at school	08	3.25	1.91		
	Instrumental support	Unemployed	65	2.63	1.19	F(3,116) = 4.49	<0.05
		Employed	12	2.58	1.08		
		Self-employed	35	3.46	1.17		
		Still at school	08	3.50	1.60		
	Quality of life	Unemployed	65	2.80	1.18	F(3,116) = 3.71	<0.05
		Employed	12	2.42	1.16		
		Self-employed	35	3.51	1.12		
		Still at school	08	3.25	1.91		

4.1.4 Mediation Effect of Emotional Distress on Quality of Life

Mediation analysis was employed to examine the influence of perceived social support on psychosocial QoL. In step one of the mediation level, the regression of perceived social support on quality of life, ignoring the mediator, was significant, ß = 0.88, $t(118) = 14.13$, $p < 0.001$. Step 2 revealed that the regression of perceived social support on the mediators (anxiety and depression) was also significant; anxiety, ß = -0.61, $t(118) = -9.63$, $p < 0.001$; and depression, ß = -1.25, $t(118) = -15.13$, $p < 0.001$. Step 3 showed that the mediators (anxiety and depression), controlling for perceived social support, were significant; anxiety, ß = 0.28, $t(116) = 3.46$, $p < 0.001$; and depression, ß = -0.34, $t(116) = -5.35$, $p < 0.001$. Step 4 of the analysis revealed that controlling for the mediators (anxiety and depression), perceived social support was still a significant predictor of the perceived psychosocial QoL, ß = 0.63, $t(116) = 6.32$, $p < 0.001$. The significant results on the direct effect of perceived social support on the perceived psychosocial quality of life indicated that anxiety and depression partially mediated the relationship between social support and QoL (see Figure 1).

Figure 1

Mediation model of the effect of perceived social support on QoL through anxiety and depression



4.2 DISCUSSION

The findings of this study showed that cancer survivors had higher levels of perceived emotional support and lower levels of perceived informational support. Perceived instrumental support, anxiety, depression and QoL were reported to be neither high nor low statistically. It was also discovered that while perceived social support positively correlated with QoL, emotional distress negatively correlated with QoL and emotional distress was found to partially mediate the influence of perceived social support on QoL. Finally, interesting associations between socio-demographic characteristics and the study constructs were observed.

Regarding emotional social support, survivors perceived higher levels of support and literature indicates that helpful emotional support can come from both healthcare providers and family caregivers (DiMatteo, 2004; Tamar *et al.*, 2015). Given that Malawi has a collectivist culture that places a strong emphasis on family cohesion, it is only natural for especially close relatives to take care of the patients, and similar results were found in other collective cultures (Al-Azri *et al.*, 2014; Nurasyikin *et al.*, 2018). It is of great importance to support and encourage family caregivers and healthcare providers to continuously provide emotional support to cancer survivors. Emotional support buffers the damaging psychological impacts of cancer and as a result, it is associated with better psychological health (Zabalegui *et al.*, 2013). Research further posits that especially when it comes from a confidant such as a healthcare provider, emotional support may reduce stress and hypothalmuspituitary-adrenal-axis reactivity, which might enhance immunosurveillance against cancer recurrence (Kroenke *et al.*, 2006). This postulates that emotional support from a confidant is very important not only in building up the emotional strength of survivors but also in maintaining their well-being.

In addition to offering emotional support, family members play a crucial role in providing cancer survivors with instrumental support (Salim *et al.*, 2019). This study found that levels of instrumental support were neither high nor low, indicating an equal distribution of both. In traditional societies like Malawi, where caregiving is considered a natural responsibility, family members often assume the majority of caregiving duties. Similar findings have been reported in collectivist cultures such as India (Chaturvedi *et al.*, 2014) and Turkey (Rizalar *et al.*, 2014). Family caregivers typically provide for daily social needs, including food, shelter, household chores, and healthcare expenses. The results suggest that while cancer survivors may expect assistance with tasks that do not require financial resources, they may receive less support for expenses like healthcare costs, due to widespread financial constraints. Furthermore, research highlights the critical role family caregivers play in coordinating healthcare, acting as a bridge between healthcare providers and patients (Chaturvedi *et al.*, 2014; Salim *et al.*, 2019; Schulz *et al.*, 2018).

Informational support involves communication to provide cancer patients with proper guidance on how they can manage and cope with the illness and symptoms. It further helps patients understand the cause, course and treatment of the ailment. Literature indicates that apart from providing cancer survivors with emotional support, healthcare providers can be important sources of informational support (Al-Azri *et al.*, 2014; Tamar *et al.*, 2015). Consistent with another study (Costa-Requena *et al.*, 2015), this study found that survivors perceived very low informational support from healthcare providers. These results support the argument that physicians often underestimate patients' information needs about their cancer and treatment (Epstein & Street, 2007; Tamar *et al.*, 2015). Further, the literature postulates that in most cases, clinicians in cancer care fail to detect these needs and they go unmet (Knobf, 2007; Šprah & Šoštarič, 2004) which negatively affects patients' QoL. On the other hand, cancer patients appreciate health care more when they establish rapport with healthcare providers, are given information about their illness and the prescribed treatment, can discuss their concerns, and perceive the physician as seeking to build a partnership (Tamar *et al.*, 2015).

In general, research shows that perceived social support is particularly of great importance in enhancing cancer patients' QoL; it helps them cope with the disease and live well with the side effects of its treatments (Rasmussen *et al.*, 2021; Zhou *et al.*, 2022). For instance, emotional support buffers the damaging psychological impact of cancer thereby enhancing better psychological health (Zabalegui *et al.*, 2013); instrumental support helps survivors with nutrition, chores, treatment adherence, medical appointments and healthcare costs which contribute to an improved survival rate or protection against disability (Chaturvedi *et al.*, 2014; Schulz *et al.*, 2018); and finally, informational support can empower survivors with an understanding of their illness, risks and benefits of various treatment options (Epstein & Street, 2007; Sparks *et al.*, 2007) thereby enhancing their ability to manage their emotions, and side effects of the disease and its treatment (Šprah & Šoštarič, 2004). Our mediation analysis results further support these claims; it was revealed that there was a negative correlation between perceived social support and emotional distress (anxiety and depression), and between emotional distress and QoL, but there was a positive correlation between social support and QoL. This indicates that higher levels of perceived support are associated with lower levels of emotional distress and a better perceived QoL among cancer survivors. This finding aligns with other similar studies conducted by Azevedo *et al.* (2017) and Ng *et al.* (2015).

Studies have documented detrimental findings of insufficient social support to the well-being of cancer survivors. In one study, a low level of perceived social support was associated with higher suicidal ideation among cancer survivors (Ng *et al.*, 2015), and in another study, the absence of close family members, relatives and friends was associated with an increased risk of cancer mortality and poorer survival among cancer patients (Kroenke *et al.*, 2006). Insufficient support certainly results in psychological morbidity. For instance, when daily social needs such as food, shelter, chores and healthcare costs are unmet, survivors might end up being stressed. In this study, the insufficient informational support could be attributed to the failure to detect such needs by providers (Knobf, 2007; Šprah & Šoštarič, 2004) or simply overlooking patients' informational concerns (Epstein & Street, 2007; Sparks *et al.*, 2007). Insufficient instrumental support from family members could be attributed to their economic limitations; the majority of cancer patients, from where the current sample was drawn, come from rural settings with poor economic backgrounds making financial-related instrumental support difficult. It could also be due to 'support exhaustion' as the disease progresses (Ng *et* *al*., 2015). Overall, the current findings emphasize the need for improved social support in all three dimensions where both healthcare providers and family caregivers have a major role to play.

Cancer survivors are known to suffer from high levels of two most common psychological morbidities, namely, anxiety and depression (Ng, *et al*., 2015; Nurasyikin *et al*., 2018). The morbidities are a result of fear, worry, panic, uncertainties and sadness towards the illness and its treatment (Jacobsen & Andrykowski, 2015; Knobf, 2007). Similar to another study done among breast cancer survivors in Malaysia (Nurasyikin *et al*., 2018), findings from this study show that cancer survivors perceived moderate levels of anxiety and depression. As the literature suggests, anxiety and depression symptoms are usually highest at diagnosis with significant improvements by 8 and 24 weeks, respectively (Ng, *et al*., 2015). Since participants in this study were those diagnozed with cancer over one year, they were expected to have recovered from their initial emotional reaction at this point, and coupled with the treatment effect, perceived social support and their coping, it is expected to note their moderate perceptions on anxiety and depression.

Emotional distress has a detrimental effect on perceived quality of life (QoL), with anxiety and depression negatively correlating with QoL among cancer survivors (Azevedo *et al*., 2017; Yoo *et al*., 2017). These emotions impair compliance with medical treatments, reduce survival rates, and affect interpersonal relationships (Ng *et al*., 2015). Through mediation analysis, the present study found that both anxiety and depression negatively influenced cancer survivors' perceived psychosocial QoL. This finding aligns with previous research, indicating that emotional distress diminishes QoL perceptions (Ng *et al*., 2015; Yoo *et al*., 2017). Additionally, anxiety and depression were found to mediate the relationship between social support and survivors' perceived QoL. These emotions were negatively correlated with perceived social support, which is recognized as a critical protective factor for emotional and physical well-being (Zabalegui *et al*., 2013). Adequate social support, with its buffering effect on the psychological impact of cancer, may help protect survivors from the adverse effects of cancer-related stress (DiMatteo, 2004). Consequently, healthcare providers and caregivers must ensure that survivors receive sufficient social support to alleviate emotional distress.

Consistent with other studies, gender, place of residence, age and employment status showed associations with some study constructs. First, gender was found to be associated with anxiety; women reported higher levels of anxiety than men. Other studies have reported similar findings (eg. Linden *et al*., 2012). Gender differences may reflect how different women are from men in terms of their willingness to disclose their emotional distress; in Malawi, women are less open than men. Another possible reason could be that due to differences in their biological construction, psychological structure, and social roles, women are more likely to experience mood disturbances during such chronic illnesses than men (Li *et al*., 2015). Traditionally, women are regarded as the primary caregivers within the family, often assuming responsibility for caring for both children and elderly relatives. As a result, more women, than men, would be worried about their children. The finding emphasizes the need to help especially women cope with their emotional distress by providing them with sufficient emotional support which promotes their psychological adjustment.

Place of residence and age were significantly associated with perceived social support, depression, and psychosocial quality of life (QoL). Cancer survivors from rural areas reported lower emotional, instrumental, and informational support, along with poorer QoL, compared to their urban counterparts, while experiencing higher levels of depression. This finding aligns with previous studies (e.g., Rizalar *et al*., 2014), which revealed that rural residents, facing fewer opportunities for education and employment, often receive less social support and experience greater psychological distress (DiMatteo, 2004; Ng *et al*., 2015). Younger survivors (aged 18-30) also perceived less emotional and instrumental support than older survivors, reflecting similar observations by Mishra and Saranath (2019). For younger individuals, the challenges of education and employment often made their illness feel more disruptive to their productivity, contributing to higher depression levels. This is consistent with Linden *et al*. (2012), who found anxiety and depression to be more prevalent among younger cancer survivors.

4.3 LIMITATIONS

The results of this study are, however, subject to some limitations. First, this was a cross-sectional study, where data was collected and analyzed at a specific point in time, meaning that it did not investigate whether perceptions of social support, emotional distress and QoL change over time. Since individuals are dynamic, their attitudes, perceptions and experiences towards their health and well-being may change during their survivorship. Future research should focus on conducting longitudinal studies to investigate perception changes over time. Additionally, further assessments should examine whether these observed changes are linked to shifts in perceived QoL.

Further, survivors were requested to indicate their perceived social support, emotional distress and QoL which to some extent required some elements of recall. Survivors' recall of these experiences, which relied on memory, may not accurately reflect the actual occurrences. However, Brown and Kulik, 1982 (as cited in Schofield *et al.*, 2003) argue that there is evidence that emotionally charged events are like flashbulb memories and are recalled more accurately than other events. Since cancer information is often emotionally charged due to its associations with pain, suffering and death (Kreps, 2012), we expected patients' clear recall of the details surrounding such experiences. Third, some potential sources of social support (eg. close family members), emotional distress (eg. effects of cancer treatment) and QoL (eg. coping strategies) were not measured in the study and future research needs to include the sources.

5 CONCLUSION

This study concludes that higher levels of perceived social support are associated with lower emotional distress and improved psychosocial quality of life (QoL) among cancer survivors. Emotional distress, including anxiety and depression, correlates with reduced QoL. Urban, younger, and self-employed survivors report higher perceived social support, while urban and self-employed individuals experience better psychosocial QoL. In contrast, female and rural survivors face greater emotional distress. These findings underscore the critical role of social support in mitigating the psychological impact of cancer and its treatment. Healthcare providers and caregivers are essential in providing emotional, informational, and instrumental support to enhance survivors' well-being.

REFERENCES

Al-Azri, M.H., Al-Awisi, H., Al-Rasbi, S. & Al-Moundhri, M. (2014). Coping with a diagnosis of breast cancer among Omani women. *Journal of Health Psychology, 19*(7) 836–846. doi: 10.1177/1359105313479813

Azevedo, C., Pessalacia, J.D.R., Mata, L.R.F., Zoboli, E.L.C.P., Pereira, M.G. (2017). Interface between social support, quality of life and depression in users eligible for palliative care. *Rev Esc Enferm USP*. 51, 1-8. doi: org/10.1590/S1980-220X2016038003245

Chaturvedi, S.K., Strohschein, F.J., Saraf, G. & Loiselle, C.G. (2014). Communication in cancer care: psycho-social, interactional, and cultural issues: a general overview and the example of India. *Front. Psychol. 5*(1332). doi: 10.3389/fpsyg.2014.01332

Conley, C.C., Bishop, B.T., & Andersen, B.L. (2016). Emotions and Emotion Regulation in Breast Cancer Survivorship. Healthcare 2016, 4, 56; 1-22. doi:10.3390 /healthcare4030056

Costa-Requena, G., Arnal, R.B. & Gil, F. (2015).The influence of demographic and clinical variables on perceived social support in cancer patients. *Revista de Psicopatología y Psicología Clínica, 20,* 25-32. doi: 10.5944/rppc.vol.1.num.1.2015.14404

DiMatteo, M.R. (2004). Social Support and Patient Adherence to Medical Treatment: A Meta-Analysis. Health Psychology. 23 (2), 207–218 DOI: 10.1037/0278-6133.23.2.207

Drageset, J. (2021). Social support. In G. Haugan & M. Eriksson (Eds.), *Health promotion in health care – Vital theories and research* (Chapter 11). Springer. https://www.ncbi.nlm.nih.gov/books/NBK585650/ https://doi.org/10.1007/978-3-030-63135-2_11

Epstein, R. & Street, R. Jr. (2007). *Patient-Centered Communication in Cancer Care:* Promoting healing and reducing suffering. Bethesda, MD: National Cancer Institute

Feeney, B. C., & Collins, N. L. (2015). A new look at social support: A theoretical perspective on thriving through relationships. Personality and Social Psychology Review, 19(2), 113–147. https://doi.org/10.1177/1088868314544222

Folkman, S. (2022). Stress, coping, and hope. In J. L. Steel & B. I. Carr (Eds.), *Psychological aspects of cancer: A guide to emotional and psychological consequences of cancer, their causes, and their management* (2nd ed., pp. 109–117). Springer Nature Switzerland AG. https://doi.org/10.1007/978-3-030-85702-8_7

IOM (Institute of Medicine). (2008). *Cancer care for the whole patient: Meeting psychosocial health needs.* Nancy E. Adler and Ann E. K. Page (eds).

Washington, DC: The National Academies Press.

Jacobsen, P.B. & Andrykowski, M.A. (2015). Tertiary prevention in cancer care: Understanding and addressing the psychological dimensions of cancer during the active treatment period. *American Psychologist, 70*(2), 134-145. doi: org/10.1037/a0036513

Knobf, M.T. (2004). Psychosocial responses in breast cancer survivors. *Seminars in Oncology Nursing, 23*(1), 71–83. doi:10.1016/j.soncn.2006.11.009

Kreps, G.L. (2012). Strategic communication for cancer prevention and control: reaching and influencing vulnerable audiences. In A.G. Georgakilas (ed.). *Cancer Prevention - From Mechanisms to Translational Benefits*. ISBN: 978-953-51-0547-3, Rijeka: InTech.

Kroenke, C.H., Kubzansky, L.D., Schernhammer, E.S., Holmes, M.D. & Kawachi, I. (2006). Social Networks, Social Support, and Survival After Breast Cancer Diagnosis. *J Clin Oncol, 24*(7), 1105-1111. DOI: 10.1200/JCO.2005.04.2846

Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer Publishing Company.

Lehto-Jarnstedt, U., Ojanen, M. & Kellokumpu-Lehtinen, P. (2004). Cancer-specific social support received by newly diagnosed cancer patients: validating the new Structural-Functional Social Support Scale (SFSS) measurement tool. *Support Care Cancer, 12*, 326–337.doi: 10.1007/s00520-004-0620-7

Li, M., Lu, S., Wang, G. & Zhong, N. (2015). The Effects of Gender Differences in Patients with Depression on Their Emotional Working Memory and Emotional Experience. *Behavioural Neurology, 2015*, 1-8. doi: org/10.1155/2015/807343

Linden, W., Vodermaier, A., MacKenzie, R. & Greig, D. (2012). Anxiety and depression after cancer diagnosis: Prevalence rates by cancer type, gender, and age. *Journal of Affective Disorders, 141*(2-3), 343–351. doi: 10.1016/j.jad.2012.03.025

Ministry of Health. (2017). National cervical cancer control strategy 2016–2020. United Nations Population Fund (UNFPA). https://malawi.unfpa.org/sites/default/files/resource-pdf/National_Cervical_Cancer_Strategy_A5_30Oct17_WEB.pdf

Mishra, V.S. & Saranath, D. (2019). Association between demographic features and perceived social support in the mental adjustment to breast cancer. Psycho-Oncology, 28(2). doi: 10.1002/pon.5001

Moyo, C., Dzamalala, C., Chasimpha, S., & Parkin, D. M. (2021). Cancer incidence in Malawi: An analysis of population-based cancer registry data 2007–2017. European Journal of Cancer Care, 30(1), e13350. https://doi.org/10.1111/ecc.13350

Msyamboza, K. P., Phiri, T., Sichali, W., Kwenda, W., & Kachale, F. (2016). Cervical cancer screening uptake and challenges in Malawi from 2011 to 2015: A retrospective cohort study. BMC Public Health, 16, 806. https://doi.org/10.1186/s12889-016-3530-y

Mwafongo, A.A., Rosenberg, N.E., Ng'ambi, W., Werner, A.B., Garneau, W.M., Joe Gumulira, J., Phiri, S. & Hosseinipour, M.C. (2014). Treatment Outcomes of AIDS-Associated Kaposi's Sarcoma under a Routine Antiretroviral Therapy Program in Lilongwe, Malawi: Bleomycin/Vincristine Compared to Vincristine Monotherapy. *PLoS ONE 9*(3): e91020. doi:10.1371/journal.pone.0091020

National Cancer Institute. (2023a). *Emotions and cancer*. https://www.cancer.gov/about-cancer/coping/emotions

National Cancer Institute. (2023b). *Adjustment to cancer: Anxiety and distress*. https://www.cancer.gov/about-cancer/coping/adjusting/anxiety-distress

Ng, C.G., Mohamed, S., See, M.H., Harun, F., Dahlui, M., Sulaiman, A.H., Zainal, N.Z. & Taib, N.A. (2015). Anxiety, depression, perceived social support and quality of life in Malaysian breast cancer patients: a 1-year prospective study. *Health and Quality of Life Outcomes, 13* (205), 1-9. doi: 10.1186/s12955-015-0401-7

Ngwira, F. F., Zuo, B., Mkandawire, J., & Kondowe, W. (2020). Cancer awareness in Malawi: A comprehensive analysis of news coverage on mass media. Advances in Journalism and Communication, 8(4), 117–130. https://doi.org/10.4236/ajc.2020.84009

Nurasyikin, Z., Ihsani, M., Zakariahazli, Zulkifli, S.Z.S., Azmi, M.N., Fuad, I., Rohaizak, M., Talibruzita, A. & Zaleha, M.I. (2018). Depression, Anxiety, Stress and Perceived Social Support Among Breast Cancer Survivors in Tertiary Hospital in Malaysia in *The 2nd International Meeting of Public Health 2016 with theme "Public Health Perspective of Sustainable Development Goals: The Challenges and Opportunities in Asia-Pacific Region"*, KnE Life Sciences, 232–240. doi: 10.18502/kls.v4i4.2282

Nzangaya, A. (2024, April 30). Companies encouraged to support the Malawi Cancer Unit at QECH. Malawi24. https://malawi24.com/2024/04/30/companies-encouraged-to-support-the-malawi-cancer-unit-at-qech/

Rasmussen, H., Thorsen, L., & Kirchhoff, P. (2021). Social support as a buffer against depression in cancer patients. Supportive Care in Cancer, 29(7), 3901–3910. https://doi.org/10.1007/s00520-021-06088-0

Rizalar, S., Ozbas, A., Akyolcu, N. & Gungor, B. (2014). Effect of Perceived Social Support on Psychosocial Adjustment of Turkish Patients with Breast Cancer. Asian Pacific Journal of Cancer Prevention, 15(8), 1-6. doi: 10.7314/APJCP.2014.15.8.3429

Salim, N.F., Borhani, F., Pour, M.B. & Khabazkhoob, M. (2019). Correlation between perceived social support and resilience in the family of patients with cancer. *J Res Med Dent Sci, 7(*1): 158-162.

Schofield, P.E., Butow, P.N., Thompson, J.F., Tattersall, M.H.N., Beeney, L.J. & Dunn, S.M. (2003). Psychological responses of patients receiving a diagnosis of cancer. *Annals of Oncology, 14,* 48–56. doi: 10.1093/annonc/mdg010

Schulz, R., Beach, S. R., Friedman, E. M., Martsolf, G. R., Rodakowski, J., & James, A. V. (2018). Changing structures and processes to support family caregivers of seriously ill patients. Journal of Palliative Medicine, 21(S2), S36–S42. https://doi.org/10.1089/jpm.2017.0437

Schwarzer, R., & Schulz, U. (2013). Berlin Social Support Scales (BSSS). Measurement Instrument Database for the Social Science. http://www.midss.org/sites/default/files/berlin_social_support_scales_english_items_by_scale.pdf

Sparks, L., Villagran, M. M., Parker-Raley, J., & Cunningham, C. B. (2007). A patient-centered approach to breaking bad news: Communication guidelines for health care providers. Journal of Applied Communication Research, 35(2), 177–196. https://doi.org/10.1080/00909880701262997

Šprah, L., & Šoštarič, M. (2004). Psychosocial coping strategies in cancer patients. Radiology and Oncology, 38(1), 35–42.

Tamar, G., Katherine, L. L., Nancy, H., & Nidhi, G. (2015). Coping with women's cancer and perceived providers' support: Does type of cancer make a difference? Online Journal of Communication and Media Technologies, 5(1), 41–56.

The Nation Online. (2019, April). QECH cancer ward faces space crisis. The Nation Online. https://mwnation.com/qech-cancer-ward-faces-space-crisis/

Yoo, H., Shin, D. W., Jeong, A., Kim, S. Y., Yang, H., Kim, J. S., Lee, J. E., Oh, J. H., Park, E., Park, K., & Park, J. (2017). Perceived social support and its impact on depression and health-related quality of life: A comparison between cancer patients and the general population. Japanese Journal of Clinical Oncology, 47(8), 728–734. https://doi.org/10.1093/jjco/hyx064

Zabalegui, A., Cabrera, E., Navarro, M., & Cebria, M. I. (2013). Perceived social support and coping strategies in advanced cancer patients. Journal of Research in Nursing, 18(5), 409–420. https://doi.org/10.1177/1744987111424560

Zhou, Z., Wang, Y., & Guo, J. (2022). Social support and mental health outcomes in older adults with chronic illness: The mediating role of self-esteem. Aging & Mental Health, 26(5), 873–881. https://doi.org/10.1080/13607863.2021.1944875