

SELF-COMPASSION AND SENSE OF COHERENCE AS PREDICTORS OF QUALITY OF LIFE IN YOUNG WOMEN WITH BREAST CANCER

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ABSTRACT

Breast cancer poses substantial challenges to women's quality of life, highlighting the importance of positive psychological resources in coping with the demands of this disease. Existing research has focused more on elderly women and medical outcomes, with limited attention to the role of positive psychological resources in the quality of life of younger women. Specifically, the associations of self-compassion and sense of coherence with quality of life in this population needs further investigation. A cross-sectional research design was used to conduct this research. A sample of 100 females with the first and second stages of breast cancer was selected with an age range of 21 to 40 years ($M = 32.6$, $SD = 5.54$) using a non-probability purposive sampling technique. The self-compassion short scale, sense of coherence scale, and the quality of life questionnaire EORTC QLQ - BR 23 were used to measure the study variables. The findings of this research showed that a significant positive relationship exists between self-compassion, sense of coherence and quality of life. The results also indicated self-compassion and sense of coherence as the positive predictors of better quality of life. The findings highlight the importance of quality of life and its overall positive impact on the lives of women with breast cancer. These findings may have implications beyond breast cancer, highlighting the potential of self-compassion and sense of coherence as positive psychological attributes for promoting well-being and quality of life among women living with diverse chronic health conditions.

I. INTRODUCTION

Breast cancer is currently one of the most diagnosed cancers globally and ranks as the fifth leading cause of death, with an estimated 2.3 million new cases reported worldwide, according to GLOBOCAN 2020 data (Sung et al., 2021). As per data by World Health Organization, 1.5 million women are diagnosed with breast cancer each year worldwide and the incidence rates of breast carcinoma are rapidly increasing in Asia contributing towards the global burden of disease. Pakistan leads in Asia with the highest prevalence where 1 in 9 women are estimated to be suffering from breast cancer (Shoukat & Shah, 2023). There have been 34,066 recent cases of breast cancer documented in Pakistani women, according to the 2018 data from the Worldwide Organization for Cancer Research. The signs and side effects of breast tumors significantly lower the quality of life for women who are affected. Quality of life for this demographic is influenced by a variety of factors, including family life, social relationships, job, and psychosocial circumstances (Krigel & Myers, 2014). Symptoms of breast cancer include complete or partial change in shape or size of breasts (even without a lump), dimpling skin that occasionally resembles orange peel, discomfort in the nipples or breasts, breast retracting inwardly, changes in breast skin,

secretion from the breasts (not breast milk), and/or enlarged lymph nodes in the axilla or in close proximity to the collarbone. Hormonal, behavioral, and environmental factors have been documented to increase the risk of breast cancer. As much as 15% of the reported cases of breast cancer are caused by hereditary/genetic changes. Proven risk factors include increasing age, family history, inherited genetic mutations (e.g., BRCA1 and BRCA2), prolonged exposure to estrogen, obesity, alcohol consumption, and physical inactivity. Beyond the physical consequences, it may affect women's femininity, sexuality, and fertility, in addition to the stigmatization effect caused by its diagnosis. Moreover, it contributes to numerous negative effects on socio-cultural traits, psychosocial distress, personality structure, and negative emotions related to the illness in the form of thinking about death, and unhealthy coping mechanisms.

Women's quality of life is adversely affected by breast cancer, with research studies suggesting greater impact in younger women (Arora et al., 2001; Hoyer et al., 2011). Treatment challenges like chemotherapy induced menopause, impaired sexual function, infertility, altered body image, and other physical and psychological side effects substantially deteriorate the quality of life. However, there are some positive factors that could reduce this negative impact of breast cancer and improve overall functioning. According to Neff (2013) *self-compassion* may improve the overall quality of life for breast cancer survivors by promoting a more positive outlook, increasing life satisfaction, emotional well being, physical health, and coping mechanisms. Self-compassion enables individuals to self-heal and manage their emotions well when confronted with challenges, pain, and illnesses like cancer that are out of their control. Individuals who practice self-compassion may be more likely to develop a strong sense of coherence, as both the psychological resources involve adaptive coping mechanisms and a positive outlook on life. The concept of sense of coherence plays a crucial role in navigating the challenges of cancer, as it encompasses an individual's overarching perspective on the world, influencing their ability to discern order, exert control, and find purpose in their life experiences. It is associated with better emotional functioning, reduced pain and exhaustion, and overall functioning in breast cancer (Bruscia, 2008; Pulko, 2009; Sarenmalm, 2013). Women with breast cancer experience significant emotional turmoil, including fear, anxiety, and grief. Self-compassion can help mitigate negative emotions by fostering a supportive inner dialogue. Higher levels of sense of coherence can facilitate adaptive coping strategies during treatment and recovery. Breast cancer women's capacity to regulate their emotions has been related to their adaptability, well-being, and quality of life (Brandao, 2016).

The interplay between self-compassion, sense of coherence, and quality of life in women with breast cancer underscores the critical role of psychological and emotional support in cancer care. Both self-compassion and sense of coherence may be beneficial for reducing stress, improving mental health, and improving the overall quality of life in this population. Also, a stronger sense of coherence is associated with development of effective coping strategies and maintaining hope despite difficult circumstances and treatment complications (Pinto-Gouveia et al., 2022). Research shows that these psychological assets directly affect emotional well-being, physical functioning, and even perceived social support. Interventions aimed at enhancing positive psychology traits like hope, gratitude, self-compassion or sense of coherence can improve coping, resilience, and quality of life making them useful in treatment of different medical conditions (Zaheer & Malik., 2025). As breast cancer treatment can lead to significant life-altering emotional and physical changes, so life quality enhancement should be integrated into overall patient care. Self-compassion and sense of coherence can be improved and enhance effective coping, emotional resilience, and social support, thus enhancing quality of life (Krok et al., 2025).

II. LITERATURE REVIEW

When it comes to breast cancer, the impact goes far beyond the physical toll; it also significantly affects a person's overall well-being, especially for younger women. They often encounter a distinct set of difficulties related to treatment, including premature menopause triggered by chemotherapy, issues with fertility, changes in how they perceive their body, and problems with their sex life (Arora et al., 2001; Hoyer et al., 2011). An increasing number

of studies in psycho-oncology have explored psychological factors that may help reduce distress and enhance quality of life (QoL) in breast cancer. Self-compassion has been recognized as a factor that prevents depression and promote emotional recovery and flourishing post-diagnosis and treatment. In particular, self-compassion appears to help women adapt to negative body image by being kind on themselves and combat burden of physical changes, thus enhancing adjustment and psychological health (Pinto-Gouveia et al., 2022; Thakur et al., 2024). Empirical research has also shown that higher sense of coherence is associated with better overall QoL, less distress, and better coping in cancer patients (Sorin et al., 2024).

Large-scale epidemiological investigations emphasize the profound functional consequences of cancer. Indigenous research in Pakistan has also found significant psychosocial needs by studying a convenience sample of 130 Pakistani women with breast cancer. Indicators including age, marital status, income, duration of disease, and burden of treatment were associated with health-related quality of life (HRQoL). The research stressed the importance of emotional and social support for women with breast cancer in enhancing treatment outcomes. Theoretically, the results fit with integrative models of QoL that take into account both objective life situations and subjective considerations. This view holds that well-being and satisfaction with life are not only a function of external situations but also the way individuals perceive, cope with, and construct meaning from their experiences (Ayub et al., 2023). Thus, positive psychological resources such as sense of coherence promoting understanding and meaningfulness, and self-compassion-promoting gentler self-criticism and emotional regulation enable better adaptation and increased QoL among cancer patients.

Rationale of the Study

Overall, the literature shows that breast cancer causes serious physical and psychosocial concerns, however psychological strengths like sense of coherence and self-compassion can improve coping and QoL in cancer. There is significance of cultural contexts especially in Pakistan as influences such as family system and experiences, coping mechanisms and societal norms are relevant in shaping illness experiences and treatment. In such circumstances, understanding the role of sense of coherence and self-compassion in breast cancer care is particularly important for developing culturally responsive interventions. Also, most studies examine mixed-age or older samples, with fewer specifically examining younger women who could experience severe reproductive, sexual, and identity-oriented issues. Furthermore, although both sense of coherence and self-compassion are predictive of QoL, the degree to which they each contribute individually and their association needs to be explored further. Hence, the current study investigates the associations of self-compassion, sense of coherence, and HRQoL in young women with stage I and II breast cancer. Clarifying these relationships will allow for the identification of targets for psychosocial interventions such as compassion-based treatments and coherence-oriented interventions specific to younger women and could help the incorporation of psychological care into oncology treatment.

Hypotheses

1. There is likely to be a significant relationship between self-compassion, sense of coherence and quality of life in young women with breast cancer.
2. Self-compassion and sense of coherence are likely to predict quality of life in young women with breast cancer.
3. There will be significant differences in sense of coherence, self-compassion and quality of life between employed and unemployed women with breast cancer.

III. METHOD

Participants

The study employed a cross-sectional research design to investigate the association between quality of life, sense of coherence and self compassion in young women with breast cancer. The G power version 3.1.9.3 was used for calculating the sample size (Erdfelder et al., 1996). 100 young women with first and second stage of breast cancer with an age range between 21-40 years were selected for data collection through purposive sampling technique. Data was collected from the oncology ward and outpatient department of Inmol hospital Lahore. Women with first or second stage of breast cancer with age ranging from 21 to 40 years old were included. Women diagnosed with Stage I or Stage II breast cancer at least six months prior to participation in the study were included. This was done

to ensure that participants had sufficient time to adjust to their diagnosis and experience the treatment process. The exclusion criteria for this research were women with stage three and four cancers. Advanced-stage breast cancer women were excluded because of the potential differences in disease severity, treatment intensity and associated psychological and physical challenges to avoid. Women who were pregnant at the time of diagnosis or having severe cognitive and mental health issues were also excluded.

Measures

[I] Self-Compassion Scale: The 12-item Self-Compassion Scale – Short Form (SCS-SF), a self-report instrument was used to assess self-compassion. It assesses an individual's capacity to hold onto their pain while providing warmth, interaction and care (Neff, 2003). [II] Sense of coherence: The questionnaire by Antonovsky (1987) was used to measure sense of coherence. It measures the sense of coherence using nine items on a seven-point Likert scale. It has three subscales "comprehensibility" "manageability" and "meaningfulness". [III] The quality of life questionnaire: EORTC QLQ - BR23 was used to examine the quality of life of women with breast cancer. It is a widely used validated tool for assessing breast cancer specific quality of life (Arraras, 1993). All scales showed high internal consistency, ensuring that the items within each scale are reliably measuring their respective constructs.

Procedure

The study received approval from the Department of Applied Psychology's Board of Studies (BOS) and Ethical Review Board. The authors of the relevant scales were asked for their consent and permission to use the scales. The hospital management was approached for permission and consent for data collection. The participants were informed about the study, assured of the privacy, and informed consent was obtained before completing the set of questionnaires, which included the demographic form, the Self-Compassion Scale short form (SCS-SF), the Sense of Coherence (SOC) questionnaire, and the Quality of Life (EORTC QLQ-BR23) questionnaire. Given the sensitive nature of breast cancer and its potential psychological impact, data were collected with particular attention to participants' emotional well-being. Participants were informed that they could skip any question that caused discomfort or discontinue participation at any time. It took the participants fifteen to twenty minutes to complete, and ethical guidelines were adhered to throughout the study. SPSS was used for data analysis post data collection.

IV.RESULTS

Table I: Intercorrelations among Study Variables (N=100)

Variables	1	2	3	4	5	6	7	8	9	10	11
1. Quality of Life - Symptoms	—										
2. Quality of Life - Functioning	-.70**	—									
3. Sense of Coherence	-.72**	.62**	—								
4. Self-Compassion	-.74*	.71**	.65**	—							
5. Age	-.01	.01	.03	.02	—						
6. Education	-.06	.13	.16	.10	-.20*	—					
7. Occupation	.25*	-.14	-.10	-.23*	.02	.52**	—				
8. Familysystem	.16	-.03	-.10	-.15	.00	.37**	.53**	—			
9. Stage of Disease	-.10	.01	.01	.06	.11	-.03	-.02	-.16	—		
10. Duration of Cancer	.13	-.03	.07	-.07	.14	.09	.15	.19	.06	—	
11. Treatment	-.11	.02	.06	.12	.08	.05	.08	-.01	.20*	-.46**	—
M	32.48	18.47	27.28	38.56	32.67	1.99	1.32	1.30	1.42	3.09	1.41
SD	7.11	5.11	6.82	8.60	5.54	.99	.47	.46	.49	2.17	.494

* $p < .05$, ** $p < .01$

Table 1 presents the relationship among demographic variables, sense of coherence, self compassion and quality of life in a sample of 100 young women. It was revealed that self compassion and sense of coherence are significantly related to better quality of life functional and negatively impacted by quality of life symptoms. It also shows that education is associated with better family and occupational relationships. Treatment shows a positive correlation with stage of illness ($p < .05$) and negative correlation between Duration of Disease and Treatment ($p < .01$).

Table II: Mean comparison of Employed and Unemployed Women on Sense of coherence, Self- compassion and Quality of Life (N=100)

Variables	Unemployment		Employment		<i>t</i> (98)	<i>p</i>	Cohen's <i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
Sense of Coherence	39.94	8.01	35.62	9.20	2.40	.02	.50
Self-Compassion	27.76	6.99	26.25	6.44	1.04	.30	.23
Quality of Life - Functioning	18.97	5.29	17.41	4.62	1.44	.16	.32
Quality of Life - Symptoms	31.25	6.62	35.09	7.53	2.59	.01	.54

Table 2 presents the comparison of mean scores between employed or unemployed females from the sample of 100. The results show a statistically significant difference in Sense of Coherence (SOC) between unemployed (*M* = 39.94, *SD* = 8.01) and employed women (*M* = 35.63, *SD* = 9.20), *t* (98) = 2.40, *p* = .018, with a medium effect size (*d* = 0.50). This suggests that unemployed participants reported a higher SOC than employed participants. Scores on Self-Compassion (SC) showed no statistically significant difference between unemployed (*M* = 27.76, *SD* = 6.99) and employed women (*M* = 26.25, *SD* = 6.44). On Quality of Life - Functioning (QOLFUN), unemployed participants (*M* = 18.97, *SD* = 5.29) reported slightly higher functional QoL than employed participants (*M* = 17.41, *SD* = 4.62), but this difference was not significant. However, on Quality of Life - Symptoms (QOLSYM), significant differences were observed (*p* = .011) with medium effect. Employed participants reported higher symptom scores (*M* = 35.09, *SD* = 7.53) compared to unemployed participants (*M* = 31.25, *SD* = 6.62), indicating more symptom burden for working women.

Table III: Multiple Linear Regression Coefficients of Sense of Coherence and Self Compassion on Quality of Life Functional

Variables	<i>B</i>	<i>SE</i>	<i>B</i>	<i>P</i>	95% CI	
					<i>LL</i>	<i>LL</i>
(Constant)	.12	3.03		.97	-.5.90	6.15
Age	-.01	.07	-.01	.87	-.14	.12
Occupation	-.56	1.03	-.05	.59	-.2.61	1.49
Familysystem	1.13	.93	.10	.22	-.71	2.98
Sense of Coherence	.32	.06	.54	.000	.21	.43
Self-Compassion	.21	.07	.28	.004	.07	.34
Duration of disease	-.05	.17	-.02	.76	-.39	.28
<i>R</i> ²	.56					
<i>F</i>	16.89					

The regression model predicting Quality of Life – Functional from age, occupation, family system, sense of coherence, self-compassion. and duration of disease was statistically significant explaining 56% of the variance The results indicated that higher sense of coherence and greater self-compassion were both associated with better functional quality of life.

Table IV: Multiple Linear Regression Coefficients of Sense of Coherence and Self Compassion on Quality of Life Symptoms

Variables	<i>B</i>	<i>SE</i>	<i>B</i>	<i>P</i>	95% CI	
					<i>LL</i>	<i>UL</i>
(Constant)	56.39	3.61		.000	49.23	63.5
Age	-.01	.080	-.01	.89	-.17	.147
Occupation	1.62	1.22	.11	.19	-.81	4.05
Sense of Coherence	-.35	.07	-.42	.000	-.48	-.21
Self-Compassion	-.48	.08	-.46	.000	-.64	-.31
Duration of disease	.40	.20	.12	.04	.004	.80
<i>R</i> ²	.68					
<i>F</i>	28.02					

Table 4 shows the regression model predicting QoL - Symptoms from age, occupation, SOC, SC, and duration of disease to be statistically significant, $F(5,94)=28.021, p<.001$ ($F(5, 94) = 28.02, p < .001$), explaining 68.1% of the variance. Duration of disease was a significant positive predictor of QoL indicating that longer illness duration was associated with higher symptom burden. Both sense of coherence and self-compassion were also strong significant negative predictors of symptom severity, indicating that better sense of coherence and self-compassion were associated with fewer self reported physical symptoms.

V. DISCUSSION

The current study aims to look at the association among Sense of coherence, Self-compassion, and quality of life in young women with breast cancer. Women with breast cancer have several factors affecting their quality of life (Ayub et al., 2023; Iddrisu et al., 2020). Breast cancer is often associated with physical side effects such as discomfort, lymphedema, fatigue, sexual dysfunction, and poor sleep quality (Al-Sharman et al., 2024; Schmidt et al., 2018). Health and quality of life are adversely affected by these repercussions. Results of this study showed that age, education, and the family system impact on quality of life. Similarly, with the prior evidence breast cancer patients have revealed several variables that may affect their quality of life (El Haidari et al., 2020). There are also some other variables in religious views, age, education, financial situation, family support network, healthcare, and social institutions, in addition to goals, aspirations, and concerns related to quality of life of women with breast cancer. It is found that those women who are compassionate, have a better understanding of illness, motivated, try to reduce discomfort, acceptance, and adjust with disease have a positive and better quality of life (El Haidari et al., 2020). Self-compassion has several long-term impacts on enhancing quality of life and emotional regulation abilities through emphasizing social connections, subjective well-being, life satisfaction, and physical and mental health. Self-compassion is a primary source of comfort for cancer sufferers. Particularly, the support of friends and family helps individuals deal with their physical illness and signals that their quality of life will improve (Garcia et al., 2021).

Psychological interventions emphasizing self-compassion is helpful for those who have survived breast cancer. Self-compassion influences treating oneself with kindness and understanding during difficult experiences, recognizing that suffering is part of the shared human experience, and maintaining mindful awareness of painful thoughts and emotions helps overcoming difficult times (Neff & Germer, 2013). By reducing anxiety and depression symptoms, self-compassion therapies can improve the quality of life for those who have survived or are dealing with breast cancer (Durosini et al., 2022). It was also found that women who experience breast cancer tend to have a better quality of life when they feel coherent. Sense of coherence is positively correlated with perceived health, which is consistent with other research on sense of coherence and its connection to cancer-related tiredness, symptom burden, and quality of life in women with breast cancer. A stronger sense of coherence is also connected to improved subjective health outcomes in individuals (Hiensch, 2020). This study shows that women with breast cancer who have a strong sense of coherence experience better quality of life, as compared to women with weak sense of coherence who have poor quality of life or experienced more stressful events. Kenne Sarenmalm et al. (2013) provides compelling evidence on the correlation between a woman's feeling of coherence and her experience of stressful situations, coping mechanisms, health, and quality of life in breast cancer sufferers. showed that women with a high sense of coherence reported more stress-free days and fewer stressful events. They not only reported better health and a greater standard of life, but they also used more coping strategies, such as direct action, relaxation, scenario redefinition, and distraction, and they seldom ever resorted to religion in times of stress. Women who lacked a strong sense of coherence and self-awareness were more distressed, had lower coping mechanisms, and more often turned to catharsis and seeking out social support rather than accepting their circumstances. Regardless of the stage or course of therapy of the condition, their quality of life was lower and their health was worse.

The present study also shows occupation is negatively associated with quality of life. Consistent with the prior research, Nascimento et al. (2019) found women's quality of life and work productivity are affected by breast cancer treatment. The findings reported that breast cancer treatment affected women's work performance negatively, resulting in constraints and/or restrictions for leisure, efficacy, and self-care. Restrictions of these activities were connected to a worse standard of living for women's health. The results indicated that quality of life among individuals with cancer may vary according to the duration of illness and the stage of the cancer

experience. People with cancer also had higher quality of life when their illness lasted longer. Women's quality of life is lower in those with shorter illness duration who were just diagnosed. Studies of a similar nature have also shown that the length of the illness and its phase at diagnosis have an impact on the quality of life for those suffering from cancer (Jónsdóttir et al., 2023). Findings of the present study showed women who practice self-compassion are more likely to accept their suffering and learn constructive coping mechanisms for their feelings. Their quality of life is significantly impacted by this enhanced capacity for coping, as it lessens emotions of inadequacy and self-blame that frequently surface during cancer treatment. The finding supports that self-compassion and sense of coherence help women adapt to their diagnosis, treatment and enhance their overall quality of life. It suggests that education helps women feel more in control of their career and health, which improves their quality of life (Bhattachargee & Ghosh, 2024).

Limitations, Recommendations and Implications of the Study

In the present study, only young women were studied and the size of the sample was relatively small, hence the generalizability of the results may be limited. The study was cross-sectional, and data was collected all at once, making it more difficult to infer relationships or understand how they develop over time. Longitudinal studies are therefore needed to examine how self-compassion and sense of coherence evolve throughout the cancer journey. Despite these limitations, this research can contribute to the growing field of positive and health psychology by providing analytical support for the role of self-compassion and coherence in cancer care, potentially influencing future research and interventions. Furthermore, the findings could be applied to other chronic illnesses, suggesting that fostering positive resources and traits like self-compassion and coherence can enhance the well-being and quality of life of females with a wide range of health conditions. The current study will be helpful in the domains of health psychology, positive psychology, and psycho education in general. This research underscores the need for holistic care that addresses not just the physical, but also the emotional and psychological dimensions of their health.

VI.CONCLUSION

In conclusion, this research work highlights the association between sense of coherence, self-compassion, and quality of life in young women with cancer. Through a comprehensive analysis of demographic information, sense of coherence and self-compassion, this research has identified the relationships between these variables and quality of life. Results show a significant positive relationship between sense of coherence and quality of life. Women who perceive their condition as comprehensible, manageable, and meaningful may be better equipped to cope with the challenges of breast cancer and its treatment. Through the development of useful coping mechanisms, they are better able to manage the difficulties posed by their diagnosis and experience less emotional distress. Coherence is important because it promotes healthy lifestyle choices, self-care, and adherence to treatment procedures. Enhancing treatment outcomes and physical well-being can lead to an improved quality of life.

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