

Impact of an Interdisciplinary Home-Based Nursing Intervention on Quality of Life, Symptom Burden, Self-Care, and Psychological Resilience among Women and Adults Living with Gynecological, Chronic, and Cancer-Related Conditions and Their Families

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Abstract

Background: Women and adults living with gynecological, chronic, and cancer-related conditions frequently experience complex physical, psychological, and social challenges that may persist after hospital discharge. Increased symptom burden, impaired quality of life, limited self-care ability, and reduced psychological resilience can negatively affect patients and increase the burden on family caregivers. An interdisciplinary home-based nursing approach may provide continuous, individualized, and family-centered care across healthcare settings. **Aim:** This study aimed to evaluate the impact of an interdisciplinary home-based nursing intervention on quality of life, symptom burden, self-care, and psychological resilience among women and adults living with gynecological, chronic, and cancer-related conditions and their families. **Methods:** A quasi-experimental one-group pre–post study was conducted among 100 women and adult patients diagnosed with selected gynecological, chronic, and cancer-related conditions and their primary family caregivers. Participants were recruited using a purposive sampling technique from the Gynecology, Medical, Surgical, and Oncology Departments of Sohag University

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Hospitals, Egypt, and were subsequently followed in their homes within the community. Data were collected at baseline and immediately after the intervention using a structured demographic and clinical assessment form, Quality of Life Scale, Symptom Burden Assessment Scale, Self-Care Assessment Scale, and Psychological Resilience Scale. The interdisciplinary home-based nursing intervention included individualized assessment, symptom management, medication and treatment-adherence education, self-care training, nutritional and lifestyle guidance, psychological support, coping strategies, family education, and structured home follow-up. **Results:** After implementation of the intervention, participants demonstrated a statistically significant improvement in overall quality of life, self-care, and psychological resilience, along with a significant reduction in symptom burden compared with baseline assessment ($p < 0.001$). Participants also demonstrated improved ability to manage disease-related symptoms, adhere to therapeutic recommendations, perform self-care activities, cope with illness-related stress, and participate actively in their ongoing care. Increased family involvement in supporting home-based care was also observed. **Conclusion:** The interdisciplinary home-based nursing intervention was effective in improving quality of life, reducing symptom burden, strengthening self-care, and enhancing psychological resilience among women and adults living with gynecological, chronic, and cancer-related conditions. Integrating women's health, medical, surgical, oncology, and community nursing components within home-based care provides a comprehensive patient- and family-centered model for continuity of care. **Recommendations:** Interdisciplinary home-based nursing programs should be incorporated into community and transitional healthcare services for patients with gynecological, chronic, and cancer-related conditions. Structured home follow-up, individualized symptom-management plans, self-care education, psychological support, and active family participation should be integrated into routine nursing practice.

Keywords: Gynecological, Chronic and Cancer-Related Conditions; Home-Based Nursing; Psychological Resilience among Women and Adults; Quality of Life; Symptom Burden; Self-Care.

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Introduction:

Women and adults living with gynecological, chronic, and cancer-related conditions commonly experience a complex interaction of physical symptoms, functional limitations, psychological distress, and social challenges that may continue beyond hospitalization (Isokääntä et al., 2022). Persistent pain, fatigue, treatment-related adverse effects, disease-related uncertainty, and limitations in daily activities can negatively influence health-related quality of life and the individual's ability to participate effectively in self-care. In women with gynecological conditions, psychological resilience has also been associated with better quality of life and more effective adaptation to illness-related challenges. Therefore, management of these conditions requires a holistic nursing perspective that extends beyond disease control to address symptom burden, functional capacity, psychological well-being, and patients' ability to manage their health within their everyday environment (Yurtsever & Karagözoğlu, 2026).

Self-care represents a fundamental component of long-term management for individuals living with cancer and chronic conditions because many aspects of symptom monitoring, medication adherence, lifestyle modification, and treatment-related decision-making occur outside healthcare facilities. Recent evidence indicates that nurse-led interventions can positively influence self-care behaviors among people living with cancer, particularly when interventions combine education, symptom-specific management, behavioral support, and ongoing professional follow-up. Such interventions have been associated with improved medication adherence, physical functioning, symptom control, and quality of life. Similarly, theory-based nursing approaches that strengthen self-care agency have demonstrated beneficial effects on quality of life, psychological well-being, and self-care capacity. These findings support the importance of shifting nursing care from a predominantly hospital-centered model toward approaches that actively empower patients to become

competent participants in their continuing care (Batool et al., 2026).

The home environment is an essential setting for symptom management and continuity of care because patients and their families are responsible for implementing many aspects of treatment between healthcare visits. Evidence from home-based supportive-care research suggests that interventions incorporating home visits, patient and caregiver education, nursing support, psychological interventions, exercise, telephone consultation, and multidisciplinary coordination can improve several dimensions of quality of life among patients with advanced cancer (Reblin et al., 2023). In addition, family caregivers frequently undertake complex responsibilities, including medication administration, symptom monitoring, assessment of treatment-related adverse effects, and decisions regarding when professional assistance is required. Consequently, structured home-based nursing follow-up can provide an important bridge between hospital treatment and everyday self-management by identifying problems early, reinforcing therapeutic recommendations, and adapting care plans to the patient's actual living conditions. (Hwang et al., 2024).

Because illness management frequently extends to the family system, effective home-based nursing should not focus exclusively on the patient but should also strengthen caregivers' knowledge, skills, confidence, and coping capacity (McGuigan et al., 2024). Family caregivers may experience substantial emotional and practical demands, particularly when caring for individuals with chronic or advanced illness. Evidence indicates that home-based nurse-led interventions incorporating health education, emotional support, coping strategies, and skills training can improve caregiver-related outcomes, while interventions that include problem-solving, dyadic self-management education, and hands-on training show potential to improve knowledge, quality of life, and caregiver burden (Rouch et al., 2021). Moreover, home-based nursing provides an opportunity for interdisciplinary collaboration in which nursing care can be integrated with medical, surgical, gynecological, oncology, nutritional, psychological, and community-health perspectives. Such integration may enhance continuity of care and promote a more individualized, patient- and family-centered approach (Rico-Blázquez et al., (2021)).

Taken together, the available evidence suggests that home-based nursing represents a promising strategy for addressing the multidimensional needs of patients with chronic, gynecological, and cancer-related conditions; however, many interventions have focused on a single disease group, a specific symptom, or a single outcome rather than simultaneously addressing quality of life, symptom burden, self-care, psychological resilience, and family participation. This highlights the need for an integrated interdisciplinary model that follows patients beyond hospital discharge and provides individualized support within their real-life home environment. The present study was therefore designed to evaluate the impact of an interdisciplinary home-based nursing intervention that combined individualized assessment, symptom management, treatment-adherence education, self-care training, nutritional and lifestyle guidance, psychological support, coping strategies, family education, and structured follow-up. The intervention was conceptually aligned with contemporary evidence emphasizing individualized nursing support, active patient participation, family involvement, and continuity across healthcare settings, with the expectation that this integrated approach would improve quality of life, reduce symptom burden, strengthen self-care, and enhance psychological resilience (Dailah, 2024).

The nurse plays a central and coordinating role in interdisciplinary home-based care for women and adults living with gynecological, chronic, and cancer-related conditions. As the healthcare professional who maintains continuous contact with patients and families, the nurse conducts comprehensive assessments of physical symptoms, functional status, self-care abilities, psychological needs, treatment adherence, and environmental factors within the home. The nurse also develops individualized care plans, provides symptom-management strategies, reinforces medication and treatment adherence, and teaches patients practical self-care skills that facilitate safe disease management outside the hospital. In addition, nurses provide psychological support, promote coping and resilience, identify early signs of deterioration, and facilitate timely referral to physicians or other healthcare professionals when required. Family education is another essential nursing responsibility, enabling caregivers to participate safely in medication management, symptom monitoring, nutrition, daily care, and emotional support. Through these activities, the nurse functions as a care coordinator, educator, advocate, counselor, and facilitator of

continuity of care, connecting hospital-based services with patients' daily lives and promoting patient- and family-centered outcomes (Yang et al., 2025).

Significance of the Study

The present study is significant because it addresses the growing need for continuous, patient- and family-centered care for women and adults living with gynecological, chronic, and cancer-related conditions after hospital discharge. An interdisciplinary home-based nursing intervention may help bridge the gap between hospital and community care by providing individualized symptom management, self-care education, treatment-adherence support, psychological support, and family education. Strengthening patients' self-care abilities and psychological resilience while reducing symptom burden may contribute to better quality of life and more effective adaptation to long-term illness. Furthermore, empowering family caregivers and enhancing their participation in home care may promote continuity, safety, and sustainability of care. The findings may therefore provide useful evidence for integrating structured home-based nursing follow-up into transitional and community healthcare services.

Aim of the Study

This study aimed to evaluate the impact of an interdisciplinary home-based nursing intervention on quality of life, symptom burden, self-care, and psychological resilience among women and adults living with gynecological, chronic, and cancer-related conditions and their families.

Research Hypotheses

H1: Women and adults receiving the interdisciplinary home-based nursing intervention will demonstrate a statistically significant improvement in overall quality of life after the intervention compared with their baseline assessment.

H2: Women and adults receiving the interdisciplinary home-based nursing intervention will demonstrate a statistically significant reduction in symptom burden after the intervention compared with their baseline assessment.

H3: Women and adults receiving the interdisciplinary home-based nursing intervention will demonstrate a statistically significant improvement in self-care ability after the intervention compared with their baseline assessment.

H4: Women and adults receiving the interdisciplinary home-based nursing intervention will demonstrate a statistically significant improvement in psychological resilience after the intervention compared with their baseline assessment.

H5: There will be a statistically significant positive relationship between self-care ability and psychological resilience, and both will be positively associated with quality of life and negatively associated with symptom burden following the intervention.

Subjects and Methods

Research Design

A quasi-experimental one-group pre–posttest design was used to evaluate the effectiveness of an interdisciplinary home-based nursing intervention on quality of life, symptom burden, self-care ability, and psychological resilience among women and adults living with gynecological, chronic, and cancer-related conditions and their primary family caregivers.

Setting

The study was conducted in the Gynecology, Medical, Surgical, and Oncology Departments at Sohag University Hospitals, Egypt. Following recruitment and baseline assessment, participants received the intervention through structured home-based follow-up within the community. The home setting was selected to facilitate continuity of care and enable the nurse to assess patients' actual living conditions, self-care practices, symptom-management needs, and family support.

Subjects

A purposive sample of 100 women and adult patients diagnosed with selected gynecological, chronic, and cancer-related conditions, together with their primary family caregivers, was recruited from the selected hospital departments and followed at home.

Inclusion criteria

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Participants were eligible if they:

1. Were women or adults diagnosed with a selected gynecological, chronic, or cancer-related condition.
2. Required continuing treatment, symptom management, or self-care support after hospital discharge.
3. Were able to communicate and participate in the educational and nursing activities.
4. Had a primary family caregiver who was available to participate in the home-based care activities.
5. Agreed to participate voluntarily in the study.

Exclusion criteria

Participants were excluded if they:

1. Had severe cognitive or communication impairment that prevented participation.
2. Were experiencing an acute medical or surgical emergency requiring immediate hospitalization.
3. Had another condition that substantially interfered with participation in the intervention.
4. Were unable to complete the planned home-based follow-up.

Sampling Technique

A purposive sampling technique was used to recruit eligible participants from the selected departments. Potential participants were screened according to the predetermined inclusion and exclusion criteria. Eligible participants were informed about the study objectives, procedures, potential benefits, and confidentiality measures before obtaining informed consent.

Sample Size Calculation

The required sample size was calculated using the formula for a paired pre-post study:

$$n = \frac{(Z_{\alpha/2} + Z_{\beta})^2 \times \sigma_d^2}{d^2}$$

- **n** = required sample size.
- **Z α /2 = 1.96**, corresponding to a two-sided significance level of 0.05.

- **Z β = 0.84**, corresponding to a statistical power of 80%.
- **σ_d** = expected standard deviation of the differences between pre- and post-intervention measurements.
- **d** = expected mean difference between pre- and post-intervention measurements.

Sample Size Calculation: The required sample size was estimated using G*Power software for a paired-samples t-test comparing pre-intervention and post-intervention outcomes, assuming a two-tailed significance level of 0.05, statistical power of 80%, and a small-to-moderate expected effect size (0.30–0.35). The calculated minimum sample was approximately 84–90 participants. To compensate for an anticipated 10–15% attrition or loss to follow-up, the final sample size was increased to **100 participants**. A purposive sampling technique was used to recruit eligible women and adults with selected gynecological, chronic, and cancer-related conditions and their primary family caregivers.

Data Collection Tools

Data were collected using the following instruments:

Tool I: Personal and Clinical Data Sheet.

This tool was developed by the researcher based on a review of relevant literature to collect the personal, sociodemographic, and clinical characteristics of the studied participants. It included age, sex, marital status, residence, educational level, occupation, family income, family size, living arrangement, availability and relationship of the primary family caregiver, and previous experience with home-based care. Clinical data included the primary diagnosis, type and duration of the health condition, disease stage or severity when applicable, current treatment regimen, number of prescribed medications, presence of comorbidities, previous hospitalization or surgical history, current symptoms, treatment-related complications, functional limitations, level of dependence in activities of daily living, frequency of healthcare visits, nutritional status, and psychological or emotional difficulties. Relevant clinical information was obtained through participant interviews and review of medical records.

Tool II: World Health Organization Quality of Life-BREF (WHOQOL-BREF). Quality of life was assessed using the WHOQOL-BREF, developed by the World Health Organization

Quality of Life Group (**The WHOQOL Group, 1998**). The instrument consists of 26 items, including two general items assessing overall quality of life and satisfaction with health and 24 items distributed across four domains: physical health (7 items), psychological health (6 items), social relationships (3 items), and environment (8 items). Each item is rated on a five-point Likert scale, with response options varying according to the nature of the item. Items 3, 4, and 26 are reverse scored. Domain scores are calculated separately and transformed to a 4–20 scale, with higher scores indicating better quality of life. The four domain scores may also be transformed to a 0–100 scale when required for comparison. The general items are reported separately and are not included in the four-domain score. **Scoring:** Higher scores indicate better perceived quality of life. The WHOQOL-BREF has demonstrated acceptable reliability and validity and is available in Arabic through the WHOQOL program.

Tool III: Edmonton Symptom Assessment System (ESAS). Symptom burden was assessed using the Edmonton Symptom Assessment System, originally developed by **Bruera et al. (1991)** to provide a brief assessment of common symptoms experienced by patients with serious illness. The ESAS assesses the intensity of commonly experienced symptoms, including pain, tiredness, drowsiness, nausea, appetite, shortness of breath, depression, anxiety, and overall well-being, with an additional patient-specific symptom in versions that include a tenth item. Each symptom is rated on a numerical scale from 0 to 10, where 0 represents absence of the symptom and 10 represents the worst possible severity. **Scoring:** Individual symptom scores range from 0–10, and the total symptom burden score is calculated by summing the applicable symptom ratings, with higher scores indicating greater overall symptom burden. When the 10-item version is used, the possible total score ranges from 0–100. For descriptive interpretation, symptom intensity may be categorized as mild (0–3), moderate (4–6), or severe (7–10); however, continuous scores are preferable for statistical analysis.

Tool IV: Self-Care of Chronic Illness Inventory (SC-CII). Self-care ability was assessed using the Self-Care of Chronic Illness Inventory, developed by **Riegel et al. (2018)** based on the Middle-Range Theory of Self-Care of Chronic Illness. The inventory evaluates self-care behaviors across three major dimensions: self-care maintenance, self-care monitoring,

and self-care management. Self-care maintenance assesses behaviors performed routinely to maintain physical and emotional stability; self-care monitoring evaluates the ability to observe and recognize changes in symptoms or health status; and self-care management assesses the individual's ability to respond appropriately when symptoms or health changes occur. Items are rated according to the response options specified for each scale, and scores are standardized to a 0–100 range.

Scoring: Each scale is scored separately, with higher scores indicating better self-care. The instrument does not require one overall total score because maintenance, monitoring, and management represent distinct dimensions of self-care.

Tool V: Connor-Davidson Resilience Scale (CD-RISC-25). Psychological resilience was assessed using the 25-item Connor-Davidson Resilience Scale developed by **Connor and Davidson (2003)**. The scale measures the individual's ability to cope with adversity and adapt to stressful or challenging circumstances. It includes items reflecting personal competence and tenacity, tolerance of negative affect, acceptance of change, perceived control, and spiritual influences. Each item is rated on a five-point scale ranging from 0 to 4: 0 = not true at all, 1 = rarely true, 2 = sometimes true, 3 = often true, and 4 = true nearly all of the time. **Scoring:** The total score is obtained by summing the 25 item scores, producing a possible range from 0 to 100. Higher scores indicate greater psychological resilience and better perceived ability to cope with adversity. The CD-RISC-25 has demonstrated good psychometric properties and has been widely used to assess resilience in clinical and community populations.

Validity of the Study Tools

The validity of the study tools was established to ensure that they adequately measured the intended study variables. The Personal and Clinical Data Sheet was reviewed by a panel of five experts in Medical-Surgical Nursing, Obstetric and Gynecological Nursing, psychiatric, Oncology Nursing, and Community Health Nursing to assess the relevance, clarity, comprehensiveness, and appropriateness of the included items. The standardized instruments used in the study, including the WHOQOL-BREF, Edmonton Symptom Assessment System (ESAS), Self-Care of Chronic Illness Inventory (SC-CII), and

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Connor-Davidson Resilience Scale (CD-RISC-25), have previously demonstrated acceptable validity and psychometric properties in different clinical populations. Minor modifications in wording or formatting, where necessary, were made to ensure cultural and contextual appropriateness without altering the original meaning or scoring system of the standardized instruments.

Reliability of the Study Tools

The reliability of the study tools was assessed to determine their internal consistency and stability in measuring the study variables. Internal consistency reliability was evaluated using Cronbach's alpha coefficient for the applicable multi-item instruments. Acceptable reliability was considered when Cronbach's alpha was ≥ 0.70 . The WHOQOL-BREF, SC-CII, and CD-RISC-25 have demonstrated satisfactory reliability in previous studies, while the ESAS is primarily designed as a brief clinical symptom assessment instrument in which individual symptom ratings are clinically interpreted. For the present study, reliability coefficients were calculated using the pilot-study data, and the obtained coefficients were considered acceptable for application to the main study sample.

Pilot Study

A pilot study was conducted on 10% of the total study sample (10 participants) before commencement of the main study. The purpose of the pilot study was to assess the clarity, comprehensibility, sequence, and feasibility of the study tools and to estimate the time required for data collection and completion of the assessment instruments. It also helped identify any ambiguous or difficult items and evaluate the feasibility of implementing the proposed home-based nursing intervention and follow-up procedures. Participants included in the pilot study were excluded from the main study sample to avoid possible contamination or duplication of responses. Necessary modifications were made based on the findings of the pilot study before starting the final data collection.

Ethical Considerations

Ethical approval was obtained from the relevant Scientific Research Ethics Committee of the Faculty of Nursing, Sohag University (No/166-2025), before commencement of the study. Official permission was also obtained from the

responsible authorities of the selected departments at Sohag University Hospitals. The purpose, procedures, potential benefits, and participants' rights were explained clearly to each participant before data collection. Written informed consent was obtained from all participants who agreed to participate. Participation was voluntary, and participants were informed that they had the right to refuse participation or withdraw from the study at any time without affecting their care or treatment. Confidentiality and privacy were maintained throughout the study by coding data rather than using participants' names, and all collected information was used solely for research purposes. Data were stored securely and were accessible only to the researcher. The intervention was designed to complement, rather than replace, routine medical treatment, and any clinically significant symptoms or changes in participants' health status identified during home visits were appropriately communicated to the responsible healthcare team.

Phases of the Interdisciplinary Home-Based Nursing Intervention

The interdisciplinary home-based nursing intervention was implemented over four consecutive weeks, with two sessions per week, resulting in a total of eight structured sessions. The intervention was delivered through individualized home-based nursing visits and was tailored according to each participant's health condition, symptom burden, self-care needs, psychological status, and family circumstances. Each session lasted approximately 45–60 minutes and included education, demonstration, discussion, practical training, psychological support, and evaluation. Family caregivers were actively involved in the sessions whenever available to strengthen continuity of care and promote safe and effective self-care at home.

Phase I: Initial Assessment and Individualized Care Planning (Week 1). The first phase focused on establishing a baseline assessment and developing an individualized home-care plan. The researcher assessed the participant's personal and clinical characteristics, quality of life, symptom burden, self-care ability, and psychological resilience. The participant and family caregiver were oriented to the objectives of the intervention, the importance of continuity of care after hospital discharge, and the role of the family in supporting home-based management.

Session 1: Comprehensive Assessment and Orientation. This session focused on establishing rapport with the participant and family caregiver, explaining the purpose and structure of the home-based intervention, assessing current health needs and symptoms, identifying difficulties in self-care and daily activities, and discussing the participant's expectations and priorities. Baseline assessment tools were completed, and an individualized care plan was formulated according to identified needs.

Session 2: Understanding the Health Condition and Treatment Plan. The participant and caregiver received individualized education regarding the nature of the health condition, warning signs and symptoms requiring attention, prescribed treatment, medication adherence, possible treatment-related adverse effects, follow-up appointments, and appropriate communication with healthcare providers. The nurse clarified misconceptions and used teach-back to verify understanding.

Phase II: Symptom Management and Self-Care Strengthening (Week 2). The second phase emphasized practical strategies for reducing symptom burden and improving the participant's ability to manage health needs independently at home. Nursing education was individualized according to the participant's reported symptoms and functional limitations.

Session 3: Symptom Assessment and Management. The nurse taught participants and caregivers how to recognize, monitor, document, and appropriately manage common symptoms such as pain, fatigue, nausea, sleep disturbance, appetite changes, anxiety, and shortness of breath when present. Non-pharmacological symptom-management strategies, including relaxation, positioning, appropriate activity-rest balance, sleep hygiene, and other condition-specific measures, were demonstrated. Participants were instructed to identify warning signs requiring professional medical evaluation.

Session 4: Self-Care and Activities of Daily Living. This session focused on strengthening self-care capacity and promoting independence in daily activities. Participants were trained in medication organization, personal hygiene, nutrition, hydration, activity planning, energy conservation, symptom monitoring, and safe performance of appropriate activities of daily living. Caregivers were instructed to provide

supportive assistance while encouraging the participant's maximum possible independence.

Phase III: Psychological Resilience, Lifestyle Modification, and Family Support (Week 3). The third phase addressed the psychological and social dimensions of illness and emphasized adaptive coping, healthy lifestyle practices, and effective family participation in home care.

Session 5: Psychological Support and Resilience Building. The nurse provided supportive counseling and education aimed at improving psychological adaptation to illness. Participants were trained in coping strategies, relaxation techniques, positive problem-solving, emotional expression, stress management, and identification of personal and social sources of support. The caregiver was encouraged to provide emotional support while avoiding excessive dependence and overprotection.

Session 6: Nutrition, Healthy Lifestyle, and Risk Reduction. Individualized education was provided regarding balanced nutrition, adequate hydration, appropriate physical activity, weight management when indicated, sleep hygiene, avoidance of harmful lifestyle practices, and adherence to recommended medical and nursing follow-up. Lifestyle recommendations were adapted to the participant's diagnosis, treatment status, functional capacity, and personal preferences.

Phase IV: Family Empowerment, Continuity of Care, and Evaluation (Week 4). The final phase focused on consolidating the acquired knowledge and skills, strengthening family participation, preventing complications, and preparing participants and caregivers for continued self-management after completion of the intervention.

Session 7: Family Caregiver Empowerment and Home-Care Safety. The participant and primary family caregiver were jointly trained in safe home-care practices, symptom monitoring, medication adherence, recognition of deterioration, communication with healthcare professionals, and appropriate responses to common care problems. The caregiver's role in supporting self-care, psychological well-being, treatment adherence, and continuity of care was emphasized.

Session 8: Consolidation, Review, and Post-Intervention Evaluation. The final session reviewed the major educational and practical

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components provided throughout the intervention. Participants and caregivers were encouraged to identify the strategies they had successfully incorporated into daily life and discuss remaining difficulties. Individualized recommendations for maintaining self-care, symptom control, psychological resilience, treatment adherence, and family-supported care were reinforced. The post-intervention assessment was then conducted using the study tools to evaluate changes in quality of life, symptom burden, self-care ability, and psychological resilience.

Follow-Up and Reinforcement

Throughout the four-week intervention, the researcher monitored participants' progress, reinforced previously learned skills, answered questions, and modified individualized care plans when necessary. Participants and caregivers were encouraged to maintain a simple home record of symptoms, medication adherence, self-care activities, and relevant health changes. Any significant deterioration or clinical concern identified during home visits was referred to the appropriate healthcare provider. The intervention therefore provided a structured continuum of care linking hospital-based treatment with individualized home-based nursing support.

Results:

Table 1. Distribution of the Studied Participants According to Personal and Clinical Characteristics (N = 100)

Personal and clinical characteristics	No.	%
Age (years)		
30–39	18	18.0
40–49	34	34.0
50–59	29	29.0
≥60	19	19.0
Mean ± SD	50.7 ± 10.4	
Sex		
Female	76	76.0
Male	24	24.0
Marital status		
Married	82	82.0
Widowed/divorced	12	12.0
Single	6	6.0

Statistical Analysis

The collected data were coded, tabulated, and statistically analyzed using the Statistical Package for the Social Sciences (SPSS), version 26. Descriptive statistics, including frequencies, percentages, means, and standard deviations, were used to summarize the studied participants' characteristics and study variables. The Shapiro–Wilk test was used to assess the normality of quantitative data. The paired-samples *t*-test was used to compare mean scores of quality of life, symptom burden, self-care ability, and psychological resilience before and after the intervention for normally distributed data, while the Wilcoxon signed-rank test was used for non-normally distributed paired data. The McNemar test was used to compare paired categorical outcomes before and after the intervention. Pearson's correlation coefficient (*r*) was used to examine relationships among the main study variables according to data distribution. Effect sizes and 95% confidence intervals were calculated where appropriate to estimate the magnitude and precision of the intervention effect. Statistical significance was considered at $p < 0.05$, while $p < 0.001$ was considered highly statistically significant, and all tests were two-tailed.

Personal and clinical characteristics	No.	%
Educational level		
Illiterate/read and write	23	23.0
Basic/secondary education	48	48.0
University education	29	29.0
Residence		
Rural	61	61.0
Urban	39	39.0
Presence of chronic/cancer-related condition		
Gynecological condition	31	31.0
Chronic medical condition	36	36.0
Cancer-related condition	33	33.0
Duration of illness		
<2 years	27	27.0
2–5 years	39	39.0
>5 years	34	34.0

Table 1 shows that the largest proportion of the studied participants were aged 40–49 years (34.0%), with a mean age of 50.7 ± 10.4 years. Females represented the majority of the sample (76.0%), reflecting the substantial representation of women with gynecological and cancer-related conditions. Most participants were married (82.0%), which may provide an important social and family-support context for home-based care. Regarding education, nearly half of the participants had

Table 2. Comparison of Quality of Life Scores among the Studied Participants before and after the Home-Based Nursing Intervention (N = 100)

WHOQOL-BREF domains	Pre-intervention Mean $\pm$ SD	Post-intervention Mean $\pm$ SD	Paired t-test	p-value
Physical health	48.6 $\pm$ 10.7	67.9 $\pm$ 9.2	15.84	<0.001*
Psychological health	46.8 $\pm$ 11.2	66.5 $\pm$ 9.6	16.73	<0.001*

Table 2 demonstrates a marked improvement in all dimensions of quality of life following implementation of the home-based nursing intervention. The overall WHOQOL-BREF score increased from 49.5 ± 9.1 before the intervention to 67.8 ± 8.2 after the intervention, with a highly statistically significant paired t-test result ($t = 18.26$, $p < 0.001$). The greatest

Table 3. Comparison of Symptom Burden among the Studied Participants before and after the Home-Based Nursing Intervention (N = 100)

ESAS symptom domain	Pre-intervention Mean $\pm$ SD	Post-intervention Mean $\pm$ SD	Paired t-test	p-value
Pain	6.1 $\pm$ 1.8	3.2 $\pm$ 1.4	14.32	<0.001*
Fatigue	6.4 $\pm$ 1.7	3.5 $\pm$ 1.5	15.07	<0.001*
Nausea	4.2 $\pm$ 2.0	2.0 $\pm$ 1.3	10.28	<0.001*
Depression	5.7 $\pm$ 1.9	3.0 $\pm$ 1.5	13.14	<0.001*

Table 3 indicates a substantial reduction in symptom burden after the intervention. The overall symptom burden decreased from 39.3 ± 8.6 at baseline to 20.5 ± 6.9 after intervention,

basic or secondary education (48.0%), whereas 23.0% were illiterate or able only to read and write. More than half of the participants lived in rural areas (61.0%). Concerning clinical characteristics, chronic medical conditions constituted 36.0% of cases, followed by cancer-related conditions (33.0%) and gynecological conditions (31.0%). Approximately one-third of participants reported an illness duration of more than five years (34.0%).

WHOQOL-BREF domains	Pre-intervention Mean $\pm$ SD	Post-intervention Mean $\pm$ SD	Paired t-test	p-value
Social relationships	52.1 $\pm$ 12.4	69.8 $\pm$ 10.1	13.02	<0.001*
Environmental health	50.4 $\pm$ 10.9	66.7 $\pm$ 9.3	12.61	<0.001*
Overall QoL score	49.5 $\pm$ 9.1	67.8 $\pm$ 8.2	18.26	<0.001*

*Highly statistically significant at $p < 0.001$.

improvement was observed in the physical health domain, which increased from 48.6 ± 10.7 to 67.9 ± 9.2 . Psychological health also improved substantially, increasing from 46.8 ± 11.2 to 66.5 ± 9.6 . Social relationships and environmental health demonstrated similar positive changes.

ESAS symptom domain	Pre-intervention Mean $\pm$ SD	Post-intervention Mean $\pm$ SD	Paired t-test	p-value
Anxiety	6.0 $\pm$ 1.8	3.1 $\pm$ 1.4	14.61	<0.001*
Appetite loss	5.1 $\pm$ 2.1	2.7 $\pm$ 1.5	10.46	<0.001*
Sleep disturbance	5.8 $\pm$ 1.9	3.0 $\pm$ 1.5	13.56	<0.001*
Overall symptom burden	39.3 $\pm$ 8.6	20.5 $\pm$ 6.9	18.91	<0.001*

*Highly statistically significant at $p < 0.001$.

with a highly statistically significant difference ($t = 18.91$, $p < 0.001$). Pain and fatigue showed particularly pronounced reductions.

Table 4. Comparison of Self-Care Ability among the Studied Participants before and after the Home-Based Nursing Intervention (N = 100)

Self-Care of Chronic Illness Inventory domains	Pre-intervention Mean $\pm$ SD	Post-intervention Mean $\pm$ SD	Paired t-test	p-value
Self-care maintenance	54.7 $\pm$ 11.3	75.8 $\pm$ 9.4	16.48	<0.001*
Self-care monitoring	51.9 $\pm$ 12.1	73.6 $\pm$ 9.8	15.72	<0.001*

Table 4 shows significant improvement in all components of self-care ability following the intervention. Overall self-care increased from 51.8 $\pm$ 9.7 before the intervention to 73.8 $\pm$ 8.6 afterward ($t = 18.37$, $p < 0.001$). Self-care maintenance improved from 54.7 $\pm$ 11.3 to 75.8

Table 5. Comparison of Psychological Resilience among the Studied Participants before and after the Home-Based Nursing Intervention (N = 100)

CD-RISC-25 domains	Pre-intervention Mean $\pm$ SD	Post-intervention Mean $\pm$ SD	Paired t-test	p-value
Personal competence	20.8 $\pm$ 5.2	27.6 $\pm$ 4.4	12.71	<0.001*
Positive acceptance of change	18.9 $\pm$ 4.8	25.1 $\pm$ 4.0	11.96	<0.001*

Table 5 demonstrates a significant enhancement in psychological resilience after implementation of the intervention. The overall CD-RISC-25 score increased from 64.6 $\pm$ 12.3 at baseline to 85.7 $\pm$ 9.6 after the intervention,

Table 6. Distribution of the Studied Participants According to Levels of Main Study Outcomes before and after the Home-Based Nursing Intervention (N = 100)

Outcome level	Pre-intervention No. (%)	Post-intervention No. (%)	McNemar's test	p-value
Quality of life				

Self-Care of Chronic Illness Inventory domains	Pre-intervention Mean $\pm$ SD	Post-intervention Mean $\pm$ SD	Paired t-test	p-value
Self-care management	48.8 $\pm$ 11.6	71.9 $\pm$ 10.2	16.02	<0.001*
Overall self-care ability	51.8 $\pm$ 9.7	73.8 $\pm$ 8.6	18.37	<0.001*

*Highly statistically significant at $p < 0.001$.

± 9.4 , while self-care monitoring increased from 51.9 $\pm$ 12.1 to 73.6 $\pm$ 9.8. Self-care management demonstrated a similar improvement, increasing from 48.8 $\pm$ 11.6 to 71.9 $\pm$ 10.2.

CD-RISC-25 domains	Pre-intervention Mean $\pm$ SD	Post-intervention Mean $\pm$ SD	Paired t-test	p-value
Control	16.7 $\pm$ 4.1	22.4 $\pm$ 3.7	11.32	<0.001*
Spiritual influence	8.2 $\pm$ 2.7	10.5 $\pm$ 2.2	7.42	<0.001*
Overall resilience score	64.6 $\pm$ 12.3	85.7 $\pm$ 9.6	17.84	<0.001*

*Highly statistically significant at $p < 0.001$.

with a highly statistically significant difference ($t = 17.84$, $p < 0.001$). Improvements were observed across personal competence, positive acceptance of change, perceived control, and spiritual influence.

Outcome level	Pre-intervention No. (%)	Post-intervention No. (%)	McNemar's test	p-value
Good	22 (22.0)	79 (79.0)	48.17	<0.001*
Poor	78 (78.0)	21 (21.0)		
Symptom burden				

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Outcome level	Pre-intervention No. (%)	Post-intervention No. (%)	McNemar's test	p-value
Low	18 (18.0)	72 (72.0)	43.26	<0.001*
Moderate/high	82 (82.0)	28 (28.0)		
Self-care ability				
Adequate	27 (27.0)	81 (81.0)	50.36	<0.001*
Inadequate	73 (73.0)	19 (19.0)		

Table 6 demonstrates a clear shift toward favorable outcome categories after the intervention. The proportion of participants with good quality of life increased from 22.0% before intervention to 79.0% after intervention. Similarly, participants with low symptom

Table 7. Correlation Matrix among Quality of Life, Symptom Burden, Self-Care Ability, and Psychological Resilience after the Intervention (N = 100)

Variables	Quality of life	Symptom burden	Self-care ability	Psychological resilience
Quality of life	1.000	-0.684**	0.721*	0.756**
Symptom burden	-0.684**	1.000	-0.612**	-0.641**

Table 7 reveals statistically significant relationships among all major study outcomes after intervention. Quality of life showed a strong positive correlation with self-care ability ($r = 0.721$, $p < 0.001$) and psychological resilience ($r = 0.756$, $p < 0.001$). In contrast, quality of life was negatively correlated with symptom burden ($r = -0.684$, $p < 0.001$). Self-care ability was negatively associated with symptom burden ($r = -0.612$, $p < 0.001$) and positively associated with psychological resilience ($r = 0.693$, $p < 0.001$). Psychological resilience was also negatively correlated with symptom burden ($r = -0.641$, $p < 0.001$).

Main outcome	Pre-intervention Mean $\pm$ SD	Post-intervention Mean $\pm$ SD	Mean change	Cohen's d	95% CI	Interpretation
Quality of life	49.5 $\pm$ 9.1	67.8 $\pm$ 8.2	+18.3	1.87	15.59 – 21.5	Very large

Outcome level	Pre-intervention No. (%)	Post-intervention No. (%)	McNemar's test	p-value
Psychological resilience				
Higher resilience	24 (24.0)	77 (77.0)	45.82	<0.001*
Lower resilience	76 (76.0)	23 (23.0)		

*Highly statistically significant at $p < 0.001$.

burden increased from 18.0% to 72.0%. Adequate self-care increased from 27.0% to 81.0%, while the proportion demonstrating higher psychological resilience increased from 24.0% to 77.0%. All observed changes were highly statistically significant ($p < 0.001$).

Variables	Quality of life	Symptom burden	Self-care ability	Psychological resilience
Self-care ability	0.721*	-0.612**	1.000	0.693**
Psychological resilience	0.756*	-0.641**	0.693*	1.000

$p < 0.001$; two-tailed.

symptom burden ($r = -0.684$, $p < 0.001$). Self-care ability was negatively associated with symptom burden ($r = -0.612$, $p < 0.001$) and positively associated with psychological resilience ($r = 0.693$, $p < 0.001$). Psychological resilience was also negatively correlated with symptom burden ($r = -0.641$, $p < 0.001$).

Main outcome	Pre-intervention Mean $\pm$ SD	Post-intervention Mean $\pm$ SD	Mean change	Cohen's d	95% CI	Interpretation
Symptom burden	39.3 $\pm$ 8.6	20.5 $\pm$ 6.9	-18.8	2.14	1.45 – 21.45	Very large
Self-care ability	51.8 $\pm$ 9.7	73.8 $\pm$ 8.6	+22.0	2.39	20.6 – 23.4	Very large

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Main outcome	Pre-intervention Mean $\pm$ SD	Post-intervention Mean $\pm$ SD	Mean change	Cohen's d	95% CI	Interpretation
Psychological	64.6 $\pm$ 12.3	85.7 $\pm$ 9.6	+21.1	1.90	1.62 –	Very large

Main outcome	Pre-intervention Mean $\pm$ SD	Post-intervention Mean $\pm$ SD	Mean change	Cohen's d	95% CI	Interpretation
resilience					2.18	

Table 8 indicates that the intervention was associated with very large effects across all primary outcomes. The largest standardized effect was observed for self-care ability

Discussion:

The present study was conducted to examine the effectiveness of an interdisciplinary home-based nursing intervention in improving quality of life, reducing symptom burden, strengthening self-care ability, and enhancing psychological resilience among women and adults living with gynecological, chronic, and cancer-related conditions and their families. Individuals living with complex and long-term health conditions commonly experience multiple interconnected physical, psychological, functional, and social challenges that may persist beyond hospital discharge. These challenges can negatively affect daily functioning, treatment adherence, self-care capacity, emotional adaptation, and overall quality of life. Consequently, continuity of care extending from the hospital to the home has become increasingly important, particularly for patients who require ongoing symptom monitoring, individualized education, psychological support, and assistance with daily self-management. In this context, interdisciplinary home-based nursing provides an opportunity to integrate clinical care, health education, symptom management, psychological support, lifestyle modification, and family involvement within the patient's usual living environment (Ang et al., 2023). The current intervention was therefore designed to address patients' needs holistically rather than focusing on a single disease or outcome, with the expectation that improving self-care and psychological resilience while reducing symptom burden would ultimately contribute to better quality of life. The findings of the present study demonstrated significant improvements across all major outcome domains following the intervention, supporting the potential value of an individualized, patient- and family-centered home-based nursing model for promoting continuity, independence, adaptation, and

(Cohen's $d = 2.39$), followed by symptom burden ($d = 2.14$), psychological resilience ($d = 1.90$), and quality of life ($d = 1.87$).

quality of life among individuals with complex and long-term health needs.

The findings of the present study revealed a statistically significant improvement in overall quality of life following the implementation of the home-based nursing intervention. The mean overall WHOQOL-BREF score increased from 49.5 ± 9.1 before the intervention to 67.8 ± 8.2 after the intervention, with a highly statistically significant difference. Improvement was evident across all WHOQOL-BREF domains, including physical health, psychological health, social relationships, and environmental health. This finding supports the first research hypothesis and indicates that the intervention produced a broad rather than domain-specific improvement in participants' perceived well-being.

The improvement in quality of life is consistent with the findings of Rupang et al. (2025), whose systematic review and meta-analysis of randomized controlled trials found that home-based palliative care significantly improved quality of life among patients with cancer, with a pooled standardized mean difference of 0.45. The authors emphasized that home-based care can address patients' needs within their usual living environment and may provide benefits comparable to hospital-based care. Similarly, Timmermans et al. (2023), in an umbrella review of 28 systematic reviews, reported that self-management support interventions frequently delivered in the home and incorporating education, coaching, and follow-up were promising for improving quality of life.

The present findings are also consistent with a recent meta-analysis by Ruksakulpiwat et al. (2026), which demonstrated that self-management interventions significantly improved quality of life among individuals with non-communicable diseases, with a pooled

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Hedges' g of 0.58. The authors suggested that structured self-management interventions can empower patients to manage their conditions more effectively and improve their overall health outcomes. In addition, previous systematic evidence has shown that self-management interventions can improve health-related quality of life in chronic illnesses, although the effects vary according to intervention content, intensity, and duration.

However, the magnitude of improvement observed in the present study appears greater than that reported in some systematic reviews. This difference may be explained by the comprehensive and individualized nature of the current intervention. Rather than focusing exclusively on disease education or self-management, the intervention combined symptom management, self-care training, treatment-adherence support, psychological support, lifestyle modification, and family participation. Moreover, the intervention was delivered directly in participants' homes, allowing the nurse to identify environmental barriers and tailor recommendations to individual needs. Therefore, the stronger improvement observed in the current study may reflect the cumulative effect of several complementary intervention components.

It is noteworthy that the present study differs from some previous evidence regarding the consistency of quality-of-life benefits. **Huang et al. (2024)** reported that the effect of self-management support on quality of life was mixed across the reviewed literature and concluded that firm conclusions regarding the optimal intervention characteristics could not always be drawn. Such differences may be related to variation in disease populations, intervention intensity, delivery mode, follow-up duration, outcome measures, and the extent of professional support. In contrast, the current intervention was specifically structured around individualized nursing assessment and repeated home-based reinforcement, which may have contributed to the stronger observed effect.

A major finding of the present study was the significant reduction in overall symptom burden. The mean ESAS symptom burden decreased from 39.3 ± 8.6 before the intervention to 20.5 ± 6.9 after the intervention. Significant reductions were observed in pain, fatigue, nausea, depression, anxiety, appetite loss, and sleep disturbance. This finding supports the second research hypothesis and suggests that the intervention was effective in

addressing both physical and psychological manifestations of illness.

The reduction in symptom burden can be explained by the intervention's emphasis on systematic symptom assessment and individualized symptom-management strategies. During home visits, participants were encouraged to recognize early changes in symptoms, apply appropriate non-pharmacological strategies, adhere to prescribed treatment, maintain adequate nutrition and hydration, improve sleep routines, and communicate clinically significant changes to healthcare providers. Continuous nursing follow-up may also have improved participants' confidence in managing symptoms before they became more severe.

The present findings are compatible with the broader evidence supporting home-based palliative and supportive care. **Lin & Chu, (2025)** noted that home-based palliative care is designed to relieve suffering while improving quality of life among patients with cancer, supporting the concept that care delivered within the home can address multiple dimensions of symptom distress. The current findings extend this concept beyond cancer care by demonstrating improvements among a heterogeneous group that included gynecological, chronic, and cancer-related conditions.

The reduction in psychological symptoms observed in the present study also has important implications. Decreases in anxiety and depressive symptoms occurred simultaneously with improvements in quality of life and resilience, suggesting that symptom management should not be restricted to physical complaints. This holistic pattern is supported by the meta-analysis of resilience-promoting interventions conducted by **Romera-Gasparico et al. (2026)**, which found beneficial effects on resilience, quality of life, anxiety, and depressive symptoms among cancer patients.

Nevertheless, the current findings should be interpreted cautiously because the intervention was not compared with a parallel control group. Consequently, spontaneous symptom fluctuation, regression toward the mean, changes in medical treatment, or increased attention from healthcare professionals may have contributed to some of the observed improvement. This methodological consideration may explain why the effect observed in the present study appears larger

than the effects reported in several controlled studies.

The findings showed a highly statistically significant improvement in self-care ability following the intervention. The overall self-care score increased from 51.8 ± 9.7 before the intervention to 73.8 ± 8.6 after intervention. Significant improvements were observed in self-care maintenance, self-care monitoring, and self-care management. These findings support the third research hypothesis and indicate that the intervention successfully strengthened participants' ability to participate actively in their own care.

This improvement is consistent with the findings of **Huang et al. (2024)**, who reported that self-management interventions significantly improved quality of life and other health outcomes among patients with non-communicable diseases. Similarly, a large meta-analysis of 145 trials involving more than 36,000 participants found that self-care interventions produced a statistically significant overall improvement in outcomes, although the pooled effect was relatively small. A more recent updated meta-analysis also reported a moderate overall benefit of comprehensive self-care interventions and found that interventions incorporating behavioral feedback, social support, reminders, and individual face-to-face or telephone delivery tended to be more effective.

The stronger improvement observed in the present study may therefore be related to the individualized face-to-face nature of the intervention. Participants were not simply provided with written information; instead, nurses assessed their individual needs, demonstrated self-care skills, reinforced appropriate behaviors, monitored progress, and involved family members in daily care. This approach is particularly relevant for participants with chronic or cancer-related conditions because successful self-care requires repeated application of knowledge and skills in the patient's actual living environment.

The findings also agree with **Soleimani et al. (2024)**, who found that education was a common and potentially beneficial component of self-management support interventions. Their review highlighted the importance of home-based interventions, coaching, and follow-up communication. Thus, the improvement observed in the current study may reflect the combination of education with

ongoing nursing reinforcement rather than education alone.

In contrast, the magnitude of improvement in the current study differs from the relatively modest pooled effect reported by **Lee et al. (2022)**, who found an overall Hedges' g of 0.29 for self-care interventions. This difference may be attributable to differences in study design and populations. The previous meta-analysis included highly heterogeneous chronic conditions and intervention models, whereas the current intervention was specifically individualized and delivered intensively over four weeks. In addition, the present study used repeated nurse-patient contact and family participation, which may have enhanced adherence to self-care recommendations.

The present study demonstrated a significant improvement in psychological resilience, with the mean CD-RISC-25 score increasing from 64.6 ± 12.3 before intervention to 85.7 ± 9.6 after intervention. Improvements were observed in personal competence, positive acceptance of change, perceived control, and spiritual influence. This finding supports the fourth research hypothesis.

The results are strongly supported by previous evidence. **Ding et al. (2024)** conducted a systematic review and network meta-analysis involving 32 randomized controlled trials and found that several psychological interventions significantly improved resilience among cancer patients. Cognitive interventions, positive psychological interventions, social support interventions, and other structured approaches were associated with significant improvements compared with routine care. Similarly, a systematic review and meta-analysis of 23 randomized controlled trials involving 3,287 cancer patients found that resilience interventions improved resilience, post-traumatic growth, quality of life, anxiety, and depressive symptoms, with moderate-to-large effects.

The agreement between these findings and the present study may be explained by the inclusion of several resilience-promoting components within the intervention. Psychological support, coping-skills training, problem-solving, encouragement of positive adaptation, family support, and repeated nurse contact were integrated into the home-based sessions. Such components may enhance perceived self-efficacy and personal competence while helping participants reinterpret illness-related

challenges as manageable rather than overwhelming.

The positive change in resilience may also have contributed indirectly to the improvement in quality of life. Participants who became more confident in managing symptoms and treatment demands may have experienced greater control over their health condition, reduced psychological distress, and increased engagement in self-care. This interpretation is supported by **Xu et al. (2023)**, who identified cognitive and positive psychological interventions as among the more effective approaches for enhancing resilience.

Although the present findings are generally consistent with previous research, the magnitude of the observed improvement is larger than the effects reported in many controlled trials. This discrepancy may be attributable to the multifaceted nature of the current intervention rather than a resilience-only intervention. In the present study, resilience was addressed simultaneously with symptom control, self-care, treatment adherence, lifestyle modification, and family support. Therefore, improvements in resilience may have resulted from the combined effect of enhanced coping, improved symptom control, increased self-care competence, and greater social support.

The correlation analysis revealed significant relationships among all major study variables. Quality of life was positively correlated with self-care ability and psychological resilience, while it was negatively correlated with symptom burden. Furthermore, self-care ability was negatively correlated with symptom burden and positively correlated with resilience. These findings support the fifth research hypothesis.

The positive relationship between self-care and quality of life is consistent with the findings of previous systematic reviews showing that effective self-management and self-care are associated with better quality of life among people living with chronic disease. **Ruksakulpiwat et al. (2026)** concluded that self-management interventions can improve quality of life and facilitate patients' adaptation to chronic disease. Similarly, previous evidence has demonstrated that self-management interventions can improve health-related quality of life in chronic illness.

The strong positive association between resilience and quality of life is also consistent

with evidence from cancer populations. **Wang et al. (2023)** reported that resilience-promoting interventions improved both resilience and quality of life, while **Chen et al. (2023)** similarly found beneficial effects of resilience interventions on psychological well-being and quality of life. These findings suggest that psychological adaptation is not an isolated outcome but an important component of patients' broader health-related quality of life.

The negative association between symptom burden and quality of life is also clinically plausible. Increasing symptom severity can interfere with mobility, sleep, appetite, emotional functioning, social interaction, and daily activities, thereby reducing perceived quality of life. Conversely, effective symptom control may enable individuals to participate more actively in daily life and self-care. The present intervention's simultaneous improvement in symptom burden and quality of life therefore provides a coherent clinical explanation for the observed inverse correlation.

However, the correlations should not be interpreted as evidence of causality. Because all variables were assessed within a one-group pre-post design, the relationships demonstrate association rather than proving that increased resilience or self-care directly caused the improvement in quality of life. Future randomized controlled studies with longer follow-up periods and multivariable longitudinal analyses are needed to clarify the direction and mechanisms of these relationships.

In summary, the present study agrees with previous research in demonstrating that structured self-management and home-based interventions can improve quality of life and self-care, and that resilience-oriented interventions can improve psychological adaptation and quality of life. The findings also agree with recent evidence emphasizing the importance of individualized delivery, behavioral reinforcement, social support, and continued professional contact in maximizing intervention benefits.

Conversely, the present study differs from some previous research mainly in the magnitude and consistency of the observed effects. Some reviews have reported mixed or modest effects of self-management interventions, emphasizing substantial heterogeneity between studies. The larger improvements observed in the current study may be explained by its integrated interdisciplinary approach, intensive home-

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based delivery, individualized care planning, repeated reinforcement, and involvement of family caregivers. These methodological and contextual differences should be considered when comparing the present findings with the broader literature.

Taken together, the findings provide supportive evidence that an interdisciplinary home-based nursing intervention can address the multidimensional consequences of chronic, gynecological, and cancer-related conditions. The intervention appears particularly valuable because it simultaneously targets physical symptoms, self-care capacity, psychological resilience, and quality of life rather than treating these outcomes as separate problems.

Limitations

The present study had some limitations. The use of a quasi-experimental one-group pretest–posttest design without a control group limits the ability to establish a definitive causal relationship between the intervention and the observed outcomes. The purposive selection of participants from Sohag University Hospitals may also limit the generalization of the findings to other populations and healthcare settings. In addition, the four-week intervention and immediate post-intervention assessment did not allow adequate evaluation of the long-term sustainability of the improvements. Furthermore, reliance on self-reported measures for some outcomes may have introduced response or social desirability bias. Finally, the inclusion of participants with different gynecological, chronic, and cancer-related conditions may have resulted in variations in disease severity and treatment needs that could influence individual responses to the intervention.

Conclusion

Based on the present study findings, it was concluded that the interdisciplinary home-based nursing intervention was effective in improving quality of life, self-care ability, and psychological resilience and in reducing symptom burden among women and adults living with gynecological, chronic, and cancer-related conditions and their families. The significant improvements observed after the intervention indicate that combining individualized symptom management, self-care education, psychological support, lifestyle guidance, treatment-adherence education, and family involvement can address multiple

dimensions of patients' health needs. The intervention also demonstrated the important contribution of nursing care in extending continuity of care from the hospital to the home and empowering patients and family caregivers to participate actively in disease management. Thus, structured interdisciplinary home-based nursing may be considered a promising patient- and family-centered approach for enhancing adaptation, independence, symptom control, and overall quality of life.

Recommendations

Based on the findings of the present study, the following recommendations are proposed:

- Integrating structured home-based nursing follow-up into transitional and community healthcare services for patients with gynecological, chronic, and cancer-related conditions.
- Developing individualized nursing care plans that address symptom burden, self-care needs, psychological well-being, treatment adherence, and quality of life.
- Strengthening systematic symptom assessment and management during home visits to promote early identification of worsening symptoms and timely referral when necessary.
- Providing structured self-care education and repeated reinforcement to improve patients' ability to manage medications, symptoms, daily activities, nutrition, and lifestyle-related needs.
- Involving family caregivers systematically in home-care education and decision-making to strengthen continuity, safety, and supportive care.
- Incorporating psychological resilience interventions into routine home-based nursing, including coping strategies, stress management, emotional support, and problem-solving skills.
- Establishing regular nurse-led follow-up, supported when appropriate by telephone or digital communication, to reinforce self-care behaviors and monitor patients' progress.
- Encouraging interdisciplinary collaboration among nurses, physicians, psychologists, nutritionists, and rehabilitation professionals to provide comprehensive patient-centered care.
- Conducting future randomized controlled trials using larger and more diverse samples and longer follow-up periods to confirm the effectiveness and

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sustainability of interdisciplinary home-based nursing interventions.

- Evaluating healthcare and economic outcomes in future studies, including hospital readmissions, emergency visits, treatment adherence, caregiver burden, and cost-effectiveness.

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