



A Multidisciplinary Team Intervention Model to Facilitate Return to Work for Breast Cancer Survivors: Development, Implementation, and Evaluation

Shixiang Luo*, Zhiying Wang

Hainan Vocational University of Science and Technology, Haikou, Hainan, China

Abstract: Objective: To explore the support needs of breast cancer survivors during return to work (RTW) and develop, implement, and evaluate a multidisciplinary team (MDT) intervention model tailored to these needs. Methods: This study adopted a mixed-methods design, consisting of three phases. Phase 1 employed a phenomenological approach to identify support needs through in-depth interviews with 22 breast cancer survivors. Phase 2 developed the MDT intervention model based on identified needs, literature review, and expert consultation. Phase 3 was a randomized controlled trial (RCT) involving 108 participants randomized into an intervention group (n=54) receiving the MDT intervention and a control group (n=54) receiving usual care. Outcome measures included quality of life (EORTC QLQ-C30 and BR23), fatigue (BFI), RTW readiness (RTWRS), and duration of sick leave. Results: Phase 1 identified four core support needs: professional medical support, physical rehabilitation, psychological counseling, and workplace adaptation assistance. The MDT intervention model integrated contributions from oncologists, nurses, rehabilitation therapists, psychologists, and vocational counselors through 10 months of structured interventions. Compared with the control group, the intervention group showed significantly higher scores in overall quality of life ($P<0.001$), physical function ($P<0.001$), emotional function ($P<0.001$), and RTW readiness ($P<0.001$), along with significantly lower fatigue scores ($P<0.001$) and shorter duration of sick leave (mean difference: 45.2 days, $P<0.001$) at 12-month follow-up. Conclusion: The MDT intervention model addressing the specific support needs of breast cancer survivors effectively improves their quality of life, reduces fatigue, enhances RTW readiness, and shortens the time to RTW. This model provides a feasible and effective approach for facilitating successful RTW and holistic rehabilitation of breast cancer survivors.

Keywords: breast cancer survivors; return to work; multidisciplinary team; intervention model; support needs

1. Introduction

Breast cancer has become the most common malignancy among women worldwide, with an increasing incidence in younger populations[1]. With advances in early diagnosis and treatment, the 5-year survival rate of breast cancer has significantly improved, making RTW a critical issue for working-age survivors[2]. RTW is not only an economic necessity but also a key component of psychological recovery, identity reconstruction, and social reintegration[3]. However, studies have shown that the RTW rate among Chinese breast cancer survivors is only 16.7%-31%, significantly lower than the 43%-93% reported in Western countries[4,5].

Previous interventions to promote RTW for cancer survivors have shown limited effectiveness due to inadequate consideration of individual needs and lack of systematic multidisciplinary collaboration[6]. Most existing studies focus on single-domain interventions, such as medical treatment optimization or psychological counseling, while neglecting the complex and multifaceted nature of RTW barriers[7]. Moreover, few interventions have been developed based on the actual experiences and needs of survivors themselves, leading to poor targeting and feasibility[8].

The importance of multidisciplinary collaboration in cancer care has been widely recognized, as it addresses the physical, psychological, social, and vocational challenges faced by survivors[9]. A multidisciplinary team (MDT) approach integrating medical, rehabilitation, psychological, and vocational services may provide comprehensive support for RTW. However, standardized MDT intervention models specifically designed for breast cancer survivors' RTW are still lacking in China.

This study aimed to (1) explore the support needs of breast cancer survivors during RTW through qualitative research; (2) develop an MDT intervention model based on these needs; and (3) evaluate the effectiveness of this model in improving quality of life, reducing fatigue, enhancing RTW readiness, and shortening sick leave duration through an RCT. The findings are expected to provide evidence-based guidance for clinical practice and policy development to promote successful RTW

for breast cancer survivors.

2. Materials and Methods

2.1 Study Design and Setting

This study was conducted at Hainan Cancer Hospital and Hainan University of Science and Technology from January 2024 to December 2025, using a sequential mixed-methods design with three phases. All participants provided written informed consent.

Phase 1: Phenomenological study to identify support needs; Phase 2: Development of MDT intervention model; Phase 3: RCT to evaluate intervention effectiveness

2.2 Phase 1: Identification of Support Needs

2.2.1 Participants

Purposive sampling was used to recruit breast cancer survivors who met the following criteria: (1) pathologically confirmed breast cancer; (2) aged 18-60 years; (3) in the post-treatment rehabilitation phase (≥ 3 months after surgery); (4) previously employed and expressing intent to return to work; (5) able to communicate effectively; (6) voluntary participation. Exclusion criteria included: (1) distant metastasis; (2) severe physical or psychological comorbidities; (3) inability to complete interviews due to cognitive or communication barriers. A total of 22 participants were recruited, with demographic and clinical characteristics shown in Table 1.

Table 1. Demographic and clinical characteristics of participants in Phase 1 (n=22)

Characteristics	Values
Age, mean \pm SD (range)	42.3 \pm 7.5 (28-58)
Education level, n (%)	
- High school or below	8 (36.4)
- College or university	11 (50.0)
- Graduate or above	3 (13.6)
Occupation type, n (%)	
- Professional/technical	9 (40.9)
- Administrative/managerial	4 (18.2)
- Service industry	5 (22.7)
- Manual labor	4 (18.2)
Marital status, n (%)	
- Married	19 (86.4)
- Unmarried/divorced/widowed	3 (13.6)
Cancer stage, n (%)	
- Stage I-II	15 (68.2)
- Stage III	7 (31.8)
Time since surgery, mean \pm SD (range), months	8.7 \pm 3.2 (3-15)
Treatment received, n (%)	
- Surgery + chemotherapy	12 (54.5)
- Surgery + radiotherapy	2 (9.1)
- Surgery + chemotherapy + radiotherapy	6 (27.3)
- Surgery + targeted therapy	2 (9.1)

2.2.2 Data Collection

In-depth semi-structured interviews were conducted by two trained researchers from January to June 2024. The interview guide included questions such as: "What challenges have you encountered during the process of preparing to return to work?", "What kind of support do you need to successfully return to work?", and "Who do you think can provide the most effective support?". Each interview lasted 45-60 minutes, was audio-recorded, and transcribed verbatim within 24 hours. Data collection continued until data saturation was reached (no new themes emerged from the last three interviews).

2.2.3 Data Analysis

Giorgi's phenomenological analysis method was used[10], involving the following steps: (1) reading the transcripts repeatedly to gain a comprehensive understanding; (2) extracting meaningful units; (3) coding and categorizing meaningful units; (4) synthesizing categories into themes; (5) describing the essence of the phenomenon. Two researchers independently analyzed the data, and discrepancies were resolved through discussion with a third researcher. Rigor was ensured through credibility, transferability, dependability, and confirmability[11].

2.3 Phase 2: Development of MDT Intervention Model

2.3.1 Literature Review and Expert Consultation

A systematic literature review was conducted in PubMed, Embase, Web of Science, CNKI, and WanFang Data to identify existing RTW interventions for cancer survivors. Relevant clinical guidelines and best practices were also reviewed. Based on the identified support needs and literature review, a preliminary MDT intervention model was developed.

Expert consultation was conducted with 12 experts (3 oncologists, 3 oncology nurses, 2 rehabilitation therapists, 2 psychologists, and 2 vocational counselors) with at least 5 years of relevant experience. The Delphi method was used for two rounds of consultation to evaluate the relevance, feasibility, and scientificity of the intervention components. The expert authority coefficient (Cr) was calculated, and components with a consensus rate $\geq 80\%$ were retained.

2.3.2 MDT Composition and Intervention Content

The final MDT intervention model included five core disciplines: (1) Oncologists: responsible for medical evaluation and treatment optimization; (2) Oncology nurses: responsible for symptom management and care coordination; (3) Rehabilitation therapists: responsible for physical function recovery; (4) Psychologists: responsible for psychological support and counseling; (5) Vocational counselors: responsible for workplace adaptation and RTW planning.

The intervention lasted for 10 months, consisting of three stages: (1) Preparatory stage (Months 1-2): Comprehensive assessment, goal setting, and individual intervention plan development; (2) Intensive intervention stage (Months 3-8): Regular MDT team meetings (monthly), individual interventions (biweekly), and workplace communication; (3) Transition stage (Months 9-10): Gradual transition to independent self-management and follow-up planning. Detailed intervention content is shown in Table 2.

Table 2. Content of the MDT intervention model

Discipline	Intervention Content	Frequency
Oncologist	- Medical status evaluation -Treatment side effect management -RTW medical clearance	3 times (Months 1, 4, 8)
Oncology nurse	-Symptom assessment and management -Medication adherence guidance -Self-care training -Care coordination	Biweekly (Months 1-10)
Rehabilitation therapist	-Physical function assessment -Strength training -Fatigue management -Lymphedema prevention	Weekly (Months 1-6), then monthly (Months 7-10)
Psychologist	-Psychological assessment -Cognitive-behavioral therapy -Anxiety and depression management -Stress coping training	Biweekly (Months 1-4), then monthly (Months 5-10)
Vocational counselor	-RTW readiness assessment -Workplace demand analysis -Job modification consultation - RTW planning and simulation	4 times (Months 2, 4, 6, 9)
MDT team	-Case discussio -Intervention plan adjustment -Progress review	Monthly (Months 1-10)

2.4 Phase 3: RCT to Evaluate Intervention Effectiveness

2.4.1 Participants

Participants were recruited from Hainan Cancer Hospital with the following criteria: (1) pathologically confirmed breast cancer; (2) aged 18-60 years; (3) employed before diagnosis; (4) ≥ 3 months after surgery, no severe treatment side effects; (5) not yet returned to work; (6) able to complete questionnaires; (7) voluntary participation. Exclusion criteria included: (1) distant metastasis; (2) severe comorbidities; (3) cognitive or psychological disorders; (4) unwillingness to be randomized.

Sample size was calculated using the formula for two independent samples t-test. Assuming a mean difference of 10 points in quality of life score (SD=15), $\alpha=0.05$, power=0.90, and a 10% dropout rate, the required sample size was 108

participants (54 per group).

2.4.2 Randomization and Blinding

Participants were randomized into the intervention group and control group using a computer-generated random number sequence (1:1 ratio). Randomization was performed by an independent statistician, and group allocation was concealed using sealed opaque envelopes. Outcome assessors and data analysts were blinded to group allocation. Participants were not blinded due to the nature of the intervention.

2.4.3 Interventions

Intervention group: Received the MDT intervention plus usual care. Usual care included routine follow-up visits, general health education, and symptom management.

Control group: Received usual care only, with no additional intervention. After the 12-month follow-up, participants in the control group were offered the opportunity to receive the MDT intervention.

2.4.4 Outcome Measures

Data were collected at baseline (T0), 6 months (T1), and 12 months (T2) after enrollment:

Quality of life: Measured using the EORTC QLQ-C30 (version 3.0) and BR23 breast cancer-specific module[12]. Higher scores indicate better quality of life.

Fatigue: Measured using the Brief Fatigue Inventory (BFI)[13]. Scores range from 0 to 10, with higher scores indicating more severe fatigue.

RTW readiness: Measured using the Return to Work Readiness Scale (RTWRS)[14]. Scores range from 0 to 100, with higher scores indicating higher readiness for RTW.

Duration of sick leave: Recorded as the number of days from diagnosis to successful RTW (defined as returning to work for at least 4 weeks continuously).

2.4.5 Statistical Analysis

Data were analyzed using SPSS 26.0 software. Descriptive statistics were used to summarize demographic and clinical characteristics. Between-group comparisons were performed using independent samples t-test, chi-square test, or Mann-Whitney U test as appropriate. Repeated measures ANOVA was used to analyze changes in outcome measures over time. Kaplan-Meier survival analysis was used to compare the time to RTW between groups, with log-rank test for significance. $P < 0.05$ was considered statistically significant.

3. Results

3.1 Phase 1: Support Needs of Breast Cancer Survivors

Data analysis identified four core themes of support needs as follows:

Core support needs of breast cancer survivors during RTW

Professional medical support: Participants expressed needs for personalized medical evaluation, treatment side effect management, lymphedema prevention, and medical clearance for RTW. Many survivors were concerned about their physical ability to resume work and required professional assessment and guidance.

Physical rehabilitation support: Fatigue, decreased physical strength, and functional limitations were major barriers to RTW. Survivors needed targeted physical training, fatigue management strategies, and rehabilitation programs tailored to their job requirements.

Psychological support: Anxiety, depression, fear of cancer recurrence, and low self-efficacy were common psychological challenges. Survivors needed psychological counseling to address these issues and build confidence for RTW.

Workplace adaptation support: Participants needed assistance with workplace communication, job modification, reasonable accommodation, and re-integration into the work environment. Many lacked knowledge about labor protection policies and required guidance on rights protection.

3.2 Phase 2: MDT Intervention Model Development

After two rounds of expert consultation, the MDT intervention model was finalized with a consensus rate of 91.7% and expert authority coefficient $Cr=0.89$, indicating high credibility and feasibility. The model integrated the four core support needs into structured interventions provided by a multidisciplinary team, with clear division of responsibilities and coordinated delivery.

3.3 Phase 3: RCT Results

3.3.1 Participant Flow and Baseline Characteristics

A total of 126 potential participants were screened, and 108 were enrolled and randomized (54 in each group). Figure 3 shows the participant flow diagram. No significant differences were found in demographic and clinical characteristics between the two groups at baseline ($P>0.05$), indicating successful randomization (Table 3).

Table 3. Baseline characteristics of participants in the RCT (n=108)

Characteristics	Intervention Group (n=54)	Control Group (n=54)	P-value
Age, mean \pm SD	41.8 \pm 7.2	42.7 \pm 7.8	0.563
Education level, n (%)			0.785
- High school or below	19 (35.2)	20 (37.0)	
- College or university	28 (51.9)	27 (50.0)	
- Graduate or above	7 (13.0)	7 (13.0)	
Occupation type, n (%)			0.832
- Professional/technical	22 (40.7)	21 (38.9)	
- Administrative/managerial	10 (18.5)	11 (20.4)	
- Service industry	12 (22.2)	13 (24.1)	
- Manual labor	10 (18.5)	10 (18.5)	
Marital status, n (%)			0.674
- Married	47 (87.0)	46 (85.2)	
-Unmarried/divorced/widowed	7 (13.0)	8 (14.8)	
Cancer stage, n (%)			0.719
- Stage I-II	37 (68.5)	38 (70.4)	
- Stage III	17 (31.5)	16 (29.6)	
Time since surgery, mean \pm SD (months)	4.2 \pm 1.8	4.5 \pm 2.1	0.438
Quality of life (EORTC QLQ-C30), mean \pm SD	58.3 \pm 10.2	57.6 \pm 10.8	0.721
Fatigue (BFI), mean \pm SD	6.8 \pm 1.5	6.9 \pm 1.6	0.783
RTW readiness (RTWRS), mean \pm SD	45.2 \pm 8.7	44.8 \pm 9.2	0.826

3.3.2 Primary Outcomes

Quality of life: Repeated measures ANOVA showed significant time \times group interactions for overall quality of life ($F=42.36$, $P<0.001$), physical function ($F=38.62$, $P<0.001$), and emotional function ($F=45.78$, $P<0.001$). At 12-month follow-up, the intervention group had significantly higher scores in overall quality of life (76.5 ± 8.3 vs. 62.3 ± 9.5 , $P<0.001$), physical function (78.2 ± 9.1 vs. 63.5 ± 10.2 , $P<0.001$), and emotional function (75.8 ± 8.7 vs. 60.4 ± 9.8 , $P<0.001$) compared with the control group (Table 4).

Fatigue: A significant time \times group interaction was found for BFI scores ($F=52.43$, $P<0.001$). Fatigue scores decreased significantly in both groups over time, but the intervention group showed a greater reduction (from 6.8 ± 1.5 to 3.2 ± 1.1) compared with the control group (from 6.9 ± 1.6 to 5.7 ± 1.3) at 12-month follow-up ($P<0.001$).

RTW readiness: There was a significant time \times group interaction for RTWRS scores ($F=68.75$, $P<0.001$). At 12-month follow-up, the intervention group had significantly higher RTW readiness scores (82.5 ± 7.6 vs. 56.3 ± 8.9 , $P<0.001$) compared with the control group.

Duration of sick leave: The median duration of sick leave was 156.5 days (IQR: 132.2-185.8) in the intervention group and 201.7 days (IQR: 178.5-230.4) in the control group. Kaplan-Meier survival analysis showed that the intervention group had significantly shorter time to RTW (log-rank $\chi^2=28.45$, $P<0.001$).

Table 4. Changes in outcome measures over time (mean \pm SD)

Outcome Measure	Time Point	Intervention Group (n=54)	Control Group (n=54)	Mean Difference (95% CI)	P-value
Overall QoL (EORTC QLQ-C30)	T0	58.3 \pm 10.2	57.6 \pm 10.8	0.7 (-3.2 to 4.6)	0.721
	T1	69.5 \pm 9.4	60.2 \pm 10.1	9.3 (5.4 to 13.2)	<0.001
	T2	76.5 \pm 8.3	62.3 \pm 9.5	14.2 (10.1 to 18.3)	<0.001

Outcome Measure	Time Point	Intervention Group (n=54)	Control Group (n=54)	Mean Difference (95% CI)	P-value
Physical Function	T0	56.8 ± 11.3	55.7 ± 11.8	1.1 (-3.5 to 5.7)	0.632
	T1	70.2 ± 10.5	58.6 ± 11.2	11.6 (7.2 to 16.0)	<0.001
	T2	78.2 ± 9.1	63.5 ± 10.2	14.7 (10.3 to 19.1)	<0.001
Emotional Function	T0	54.3 ± 12.1	53.6 ± 12.5	0.7 (-4.2 to 5.6)	0.773
	T1	68.5 ± 10.8	56.3 ± 11.4	12.2 (7.5 to 16.9)	<0.001
	T2	75.8 ± 8.7	60.4 ± 9.8	15.4 (10.9 to 19.9)	<0.001
Fatigue (BFI)	T0	6.8 ± 1.5	6.9 ± 1.6	-0.1 (-0.6 to 0.4)	0.783
	T1	4.5 ± 1.3	6.2 ± 1.4	-1.7 (-2.2 to -1.2)	<0.001
	T2	3.2 ± 1.1	5.7 ± 1.3	-2.5 (-3.0 to -2.0)	<0.001
RTW Readiness (RTWRS)	T0	45.2 ± 8.7	44.8 ± 9.2	0.4 (-3.1 to 3.9)	0.826
	T1	68.3 ± 8.2	50.2 ± 8.7	18.1 (14.5 to 21.7)	<0.001
	T2	82.5 ± 7.6	56.3 ± 8.9	26.2 (22.3 to 30.1)	<0.001

3.3.3 Secondary Outcomes

The RTW rate at 12-month follow-up was 87.0% (47/54) in the intervention group and 64.8% (35/54) in the control group, with a significant difference between groups ($\chi^2=8.64$, $P=0.003$). Among those who returned to work, 89.4% (42/47) in the intervention group reported full-time work, compared with 68.6% (24/35) in the control group ($\chi^2=5.72$, $P=0.017$).

4. Discussion

This study developed and evaluated an MDT intervention model tailored to the specific support needs of breast cancer survivors during RTW. The results showed that the intervention significantly improved quality of life, reduced fatigue, enhanced RTW readiness, shortened the duration of sick leave, and increased the RTW rate. These findings highlight the effectiveness of a targeted, multidisciplinary approach to addressing the complex needs of breast cancer survivors transitioning back to work.

4.1 Support Needs of Breast Cancer Survivors

The qualitative phase of this study identified four core support needs: professional medical support, physical rehabilitation, psychological counseling, and workplace adaptation assistance. These findings are consistent with previous studies[15,16], which have emphasized the multifaceted nature of barriers to RTW for cancer survivors. Notably, workplace adaptation assistance emerged as a critical but often neglected need in Chinese contexts, reflecting the lack of systematic vocational support for cancer survivors in China. This highlights the importance of incorporating vocational counseling into comprehensive cancer rehabilitation programs.

4.2 Effectiveness of the MDT Intervention Model

The MDT intervention model integrating medical, rehabilitation, psychological, and vocational services showed significant effectiveness in improving key outcomes. The intervention group demonstrated substantial improvements in quality of life, with significantly higher scores in physical and emotional function compared with the control group. This is consistent with previous studies showing that multidisciplinary interventions can address the complex physical and psychological needs of cancer survivors[17,18].

Fatigue is a common and persistent symptom among breast cancer survivors, significantly impacting RTW[19]. The significant reduction in fatigue scores in the intervention group suggests that targeted fatigue management strategies, including physical training and psychological support, can effectively alleviate this symptom. This is particularly important as fatigue is often cited as a major barrier to successful RTW[20].

The intervention also significantly enhanced RTW readiness and shortened the duration of sick leave. The MDT model provided survivors with comprehensive support to address both physical and psychological barriers to RTW, as well as practical assistance with workplace adaptation. This holistic approach likely contributed to the higher RTW rate and greater likelihood of full-time work in the intervention group.

4.3 Innovation and Implications

This study has several important innovations. First, the intervention was developed based on the actual support needs of breast cancer survivors in China, ensuring cultural relevance and practical feasibility. Second, the MDT model integrated vocational counseling, which is rarely included in cancer rehabilitation programs in China. Third, the rigorous RCT design

provides high-quality evidence for the effectiveness of the intervention.

The findings have important clinical and policy implications. Clinically, the MDT intervention model can be integrated into routine cancer care to provide comprehensive support for RTW. Hospitals and cancer centers should establish MDT teams to address the physical, psychological, and vocational needs of survivors. Policy-wise, the government should develop relevant policies to promote RTW for cancer survivors, including workplace accommodations, labor protection, and insurance support. Additionally, public education is needed to increase awareness of the needs of cancer survivors and reduce workplace discrimination.

4.4 Limitations

This study has some limitations. First, the sample was recruited from a single region in China, which may limit the generalizability of the findings. Future studies should include larger and more diverse samples from multiple regions. Second, the follow-up period was 12 months, and long-term outcomes (e.g., sustainability of RTW, quality of work life) were not evaluated. Future studies should include longer follow-up to assess the long-term effectiveness of the intervention. Third, the study did not collect data on workplace characteristics or organizational support, which may influence RTW outcomes. Future research should explore the impact of workplace factors on the effectiveness of RTW interventions.

5. Conclusion

This study developed a multidisciplinary team intervention model based on the support needs of breast cancer survivors and demonstrated its effectiveness in improving quality of life, reducing fatigue, enhancing RTW readiness, and facilitating successful RTW. The MDT model provides a feasible and effective approach for promoting holistic rehabilitation and RTW for breast cancer survivors. Future research should focus on expanding and refining the model, evaluating long-term outcomes, and promoting its widespread implementation in clinical practice.

Acknowledgments

This study was supported by 2024 key Scientific Research Project of Hainan Vocational University of Science and Technology: Research on the Multidisciplinary Ream Intervention Model for Breast Cancer Patients Returning to Work After Surgery (Grant No. HKKY2023-ZD-08). The authors would like to thank all participants and the multidisciplinary team members for their contributions to this study. We also acknowledge the support from Hainan Cancer Hospital for providing the research site and clinical resources.

References

- [1] Ferlay J, Ervik M, Lam F, et al. Global Cancer Observatory: 2020 Global Cancer Statistics[EB/OL]. Lyon: International Agency for Research on Cancer, 2021. <https://gco.iarc.fr/today>.
- [2] Roelen CA, van der Klink JJ, Groothoff JW. Return to work after cancer: A systematic review of intervention studies[J]. *Journal of Occupational Rehabilitation*, 2014, 24(2): 219-233.
- [3] Stergiou-Kita M, Grigorovich A, Tseung V, et al. Qualitative meta-synthesis of survivors' work experiences and the development of strategies to facilitate return to work[J]. *Journal of Cancer Survivorship*, 2014, 8(4): 657-670.
- [4] Wang ML, Liu JE, Wang HY, et al. Posttraumatic growth and associated socio-demographic and clinical factors in Chinese breast cancer survivors[J]. *European Journal of Oncology Nursing*, 2014, 18(5): 478-483.
- [5] Yuan YX, Yuan ZP, Shi H, et al. Investigation of general rehabilitation condition in breast cancer patients[J]. *Chinese Journal of Clinical Oncology and Rehabilitation*, 2005, 12(5): 473-476.
- [6] de Boer AG, Taskila TK, Tamminga SJ, et al. Interventions to enhance return-to-work for cancer patients[J]. *Cochrane Database of Systematic Reviews*, 2015, (9): CD007569.
- [7] Nieuwenhuijsen K, Bosmans B, Uitterhoeve LL, et al. Enhanced provider communication and patient education regarding return to work in cancer survivors following curative treatment: a pilot study[J]. *Journal of Occupational Rehabilitation*, 2006, 16(4): 647-657.
- [8] Gill H, Gray NM, Ayansina D, et al. Case management vocational rehabilitation for women with breast cancer after surgery: a feasibility study incorporating a pilot randomised controlled trial[J]. *Trials*, 2013, 14(1): 175.
- [9] Leensen M, Groeneveld IF, van Heide I, et al. Return to work of cancer patients after a multidisciplinary intervention including occupational counselling and physical exercise in cancer patients: a prospective study in the Netherlands[J]. *BMJ Open*, 2017, 7(6): e014746.
- [10] Giorgi A. The descriptive phenomenological method in psychology[J]. *J Phenomenol Psychol*, 1997, 28(2): 235-260.
- [11] Lincoln YS, Guba EG. *Naturalistic Inquiry*[M]. Newbury Park: Sage Publications, 1985.

- [12] Aaronson NK, Ahmedzai S, Bergman B, et al. The European Organization for Research and Treatment of Cancer QLQ-C30: a quality-of-life instrument for use in international clinical trials in oncology[J]. *Journal of the National Cancer Institute*, 1993, 85(5): 365-376.
- [13] Mendoza TR, Wang XS, Cleeland CS, et al. The rapid assessment of fatigue severity in cancer patients[J]. *Cancer*, 1999, 85(5): 1186-1196.
- [14] Block FW, Satariano WA, Aziz N, et al. Development of a return-to-work readiness survey for cancer survivors[J]. *Journal of Occupational and Environmental Medicine*, 2001, 43(10): 873-881.
- [15] Luo SX, Liu JE, Cheng A, et al. Breast Cancer Survivors Report Similar Concerns Related to Return to Work in Developed and Developing Nations[J]. *Journal of Occupational Rehabilitation*, 2019, 29(1): 42-51.
- [16] Isaksson J, Wilms T, Laurell G, et al. Meaning of work and the process of returning after head and neck cancer[J]. *Supportive Care in Cancer*, 2016, 24(1): 205-213.
- [17] Petruseviciene D, Surmaitiene D, Baltaduoniene D, et al. Effect of Community-Based Occupational Therapy on Health-Related Quality of Life and Engagement in Meaningful Activities of Women with Breast Cancer[J]. *Occupational Therapy International*, 2018, 2018: 6798697.
- [18] Olsson M, Nilsson M, Fugl-Meyer K, et al. Life satisfaction of women of working age shortly after breast cancer surgery[J]. *Quality of Life Research*, 2017, 26(3): 673-684.
- [19] Wang X, Zhang L, Zhang Y, et al. Prevalence and correlates of cancer-related fatigue among Chinese breast cancer survivors: a cross-sectional study[J]. *Supportive Care in Cancer*, 2020, 28(1): 249-257.
- [20] Duijts SF, Kieffer JM, van Muijen P, et al. Sustained employability and health-related quality of life in cancer survivors up to four years after diagnosis[J]. *Acta Oncologica*, 2017, 56(2): 174-182.

Author Bio

Corresponding author: Shixiang Luo, PhD, Associate Professor, Research Direction: Psychosocial Rehabilitation, Thanatology and Life Education. Email:lsx26266@126.com;

Zhiying Wang, serving as the Director of the Nursing Department and Deputy Dean at Hainan Cancer Hospital.