
Impact of Expressive Writing on Affect, Psychological Distress, and Quality of Life of Breast Cancer Survivors in Pakistan

Sadia Sultan^{1*}, Elizabeth Maria Schwaiger²**Abstract**

In this experimental study, effectiveness of expressive writing was assessed on affect, psychological distress and quality of life of survivors of breast cancer in Pakistan. To evaluate this impact, seventy-two breast cancer survivors who fulfilled the inclusion criteria were recruited from oncology clinics of Lahore, Pakistan. Participants completed the baseline assessment including The Positive and Negative Affect Schedule (PANAS), The Depression Anxiety Stress Scale-21 (DASS-21) and WHOQOL BREF. The participants were assigned to experimental and control groups. The expressive writing group had 35 participants (EW) and the control group had 37 participants. After 4 weeks, the same measures were completed by the experimental and control group participants for the post assessment. A debriefing session was also conducted following data analysis. The control group participants were provided with the option to engage in the expressive writing task. The results of the MANOVA suggest that the writing intervention had significant positive effects on the dependent variables including depression, anxiety, stress, affect and quality of life. These results suggest that the expressive writing intervention facilitated the breast cancer survivors to overcome some of the psycho-social costs associated with cancer survivorship.

Keywords: Anxiety, Cancer, Depression, Expressive Writing, Oncology, Stress, Wellbeing

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Introduction

Breast cancer is the foremost cancer diagnosis across the globe, with over one million women diagnosed yearly (WHO, 2010). The highest rates of breast cancer across Asia are in Pakistan (Bhurgri et al., 2006), with 11% of Pakistani women receiving this diagnosis at some point in their life (Azam et al., 2021). In Pakistan Age Standardized Mortality Rate (ASMR) is 25.2

per 100,000 which is the highest rate amongst all south Asian countries. Lack of awareness, delayed evaluation and dealyed assess to treatment protocols contribute to a more advanced stage of presentation and therefore a higher ASMR (Feraly et al., 2010).

Pakistani female breast cancer survivors come for follow-ups in busy oncology wards with little or no psychological services. Therefore, this population is considered as the most vulnerable group to experience preminent symptoms of psychological distress (Stanton & Bower, 2015). And for all breast cancer survivors, there are unavoidable physical, social and psychological costs (Pennebaker, 2010); however, Pakistani survivors also experience the added emotional burden of the social stigma associated with breast cancer diagnosis. Inopportunately, Pakistani culture further encourages restraint of emotional expression among women, which cloaks these women in shame, fear and uncertainty.

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Uncertainty and shame result in higher levels of psychological distress and antipathy among Pakistani female cancer survivors (Banning et al., 2009).

For these reasons, expressive writing (Pennebaker, 2010), which facilitates writers to unveil their life experiences and unspoken emotions, can be especially helpful in this population. In fact, research has found that Asian populations experience greater benefit of expressive writing than Caucasians (Lu & Stanton, 2010). It is possible that the insights revealed in expressive writing can enable Pakistani breast cancer survivors to take a more active role in their lives by living in the present and seeing the possibilities in stressful and negative experiences. Research (Lu et al., 2019) suggests that expressive writing facilitates the cognitive processes and self-regulation among breast cancer survivors. This writing cure enables the writers to reflect and track automated negative thought process and thus practice rational problem focused coping skills (Wong, 2018).

Expressive writing has been shown to be an operative healing strategy for both clinical and nonclinical populations to heal and overcome impacts of trauma or psychological struggles. (Biakie & Wilhelm, 2005). There is also extensive literature supporting the use of expressive writing for people in various stages of their cancer journey. Expressive writing has been shown to be an effective intervention in decreasing psychopathology while increasing quality of life after cancer diagnosis (Lu et al., 2018). Participants psychopathology symptoms and alexithymia levels decreased after an expressive writing task, thus reducing the impact of cancer diagnosis on cancer patients' mental health. Expressive writing has also been presented to facilitate psychological adjustment among cancer patients (Chu et al., 2020; Low et al., 2010) as it allows individuals get relief from prepressed toxic emotions. It has been shown

to enable the client to reduce the psychosocial burden of cancer and improve cancer patient's psychological stability as well. Expressive writing is associated with reduced negative thoughts among women who lack social and emotional approval from others (Low et al., 2010) and is associated with enhanced self-regulation and physical resilience among cancer survivors (Chu et al., 2020). This basically empowers them to practice healthy distractive strategies and manage psychological distress (Chu et al., 2020).

However, a study by Lu et al. (2018) revealed that the participants in the expressive writing experimental group experienced an increase in post-traumatic stress symptoms. Gallagher et al. (2018) studied the effects of expressive writing on posttraumatic stress growth in 96 Chinese American breast cancer survivors. Contrary to previous research, their findings showed a slight increase in post-traumatic stress symptoms and a small decrease in positive changes after the intervention. Similarly according to Warmoth et al. (2017) Chinese American Immigrant breast cancer survivors initially hesitated to share their feelings and thoughts because of cultural norms, yet expressive writing intervention helped the participants to express their suppressed emotions. However it intensified the symptoms of psychological distress among these survivors. Therefore, this finding signified the importance of investigating the efficiency of this writing cure in different cultures perspective. Expressive writing infuses hope among cancer survivors which facilitates their overall adjustment styles (Teo et al., 2019). According to Low et al. (2010) this writing cure reduce negative thoughts in female cancer patients as they lack social and emotional approval from others. which is associated with enhanced self-regulation and physical resilience among cancer survivors (Chu et al., 2020).

Objectives

The purpose of this study is to evaluate efficacy of expressive writing intervention among breast cancer survivors of Pakistan. If the expressive writing intervention is efficacious, health care providers can be better equipped to address the physical and psychological trauma associated with cancer.

Hypothesis

The expressive writing intervention group will experience reductions in both negative affect and psychological distress, an increase in positive affect, which will result into improved quality of life.

Method

The present article was extracted from a Masters in Clinical Psychology (MSCP) research thesis. In this experimental research study, the impact of an expressive writing

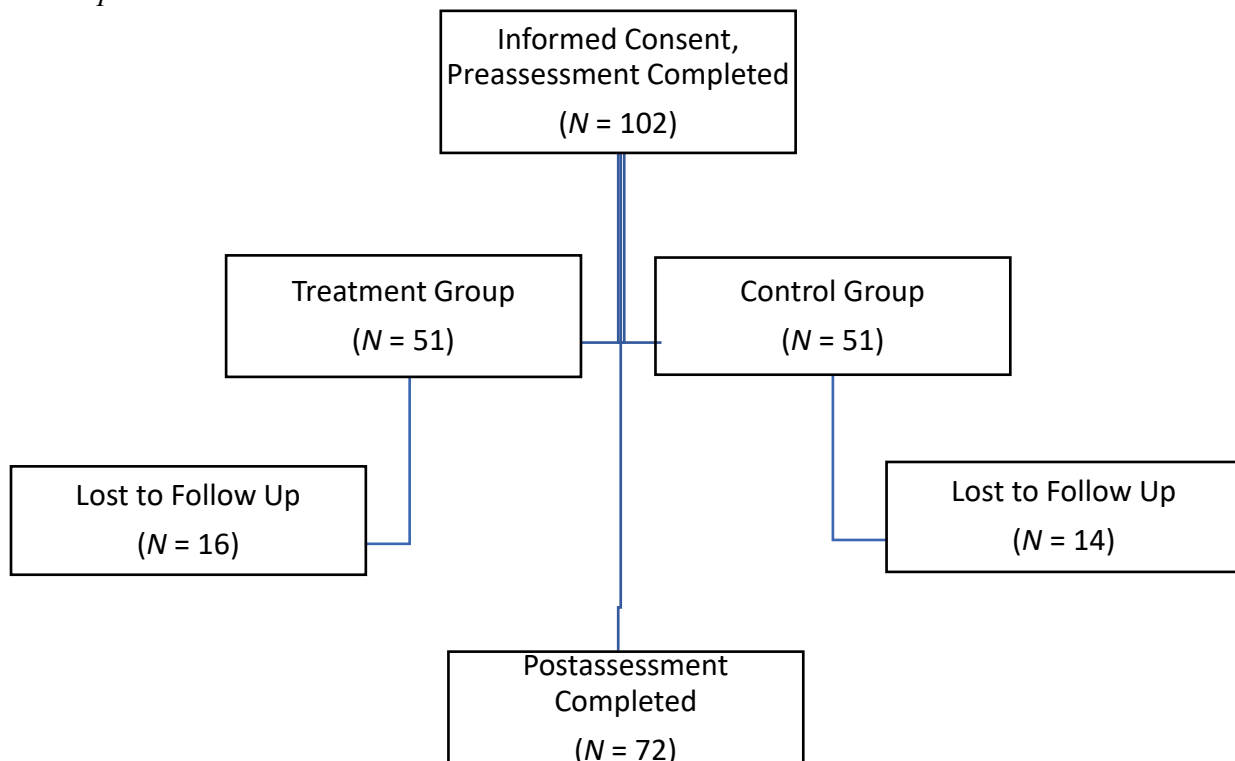
intervention on affect, psychological distress, and quality of life among breast cancer survivors was assessed.

Participants

Purposive sampling was used, 102 female breast cancer survivors residing in Lahore, Pakistan were recruited for this study. However, with random assignment, 51 cancer survivors were allotted to the experimental group and 51 to the control group. A total of 30 participants were lost to follow-up (Figure 1), resulting in a total of 72 participants completing the post intervention assessments. Previous research was used to determine sample size and power analysis for repeated measures (ANOVA) 80% power, a one-tailed alpha level of .05, and a medium effect size was done.

Figure 1

Participant Flowchart



Inclusion Criteria

In this study, female participants aged between 18 to 50 years were included who had basic reading and writing proficiency. Participants must have completed their primary treatment such as surgery or chemotherapy.

Exclusion Criteria

Individuals diagnosed with neurological disorder, cognitive impairment or active psychosis were excluded from the study. Furthermore, patients with metastatic disease or any diagnosed psychiatric illness was also excluded from the study.

Measures

Demographics Questionnaire

A simple demographics questionnaire was used to ascertain age, location, education, marital status, stage of cancer, and treatment.

Positive and Negative Affect Schedule, Short Version (PANAS; Kercher, 1992)

The PANAS, translated into Urdu by Akhter (2017) was used with breast cancer survivors to assess their positive and negative affect. This questionnaire consists of 10 Likert-type items with the response range from 1-not at all to 5-to very much. Each item represents either a positive or negative affective state. In the current study, internal consistency as measured by Cronbach's alpha for Positive affective state was .78 and it is .87 for Negative affective state.

The Depression Anxiety Stress Scale (DASS-21; Lovibond & Lovibond, 1995)

The DASS-21 Urdu translation (Aslam & Kamal, 2017) has been used to assess level of psychological distress among participants. DASS-21 being translated in Urdu showed Cronbach's alpha of .93 which is reliable. Whereas the subscales Cronbach's alpha is reliable as well (.83 for stress, .86 for anxiety, and .84 for depression. CFA were in acceptable range (.49 to .72) which determines scales construct validity as well.

The WHO Quality of Life BRIEF (WHO, 1994)

WHOQOL BRIEF was used to measure participants' quality of life. Its Urdu version was translated by Lodhi et al. (2017) and the internal consistency of translated version in the present study indicated good reliability ($r = .86$).

Procedure

The approval and permission were taken from the IRB (Institutional Review Board) of the university and ERB (Ethical Review Board) of hospital as well. The confidentiality of the participants was maintained, and no ethical violations occurred during the duration of the research study. In this experimental study, breast cancer survivors were recruited through different oncology departments in Lahore, Pakistan. Given the specific inclusion/exclusion criteria of the study, purposive sampling was used. Participants were briefed regarding the study and invited to participate. After eligibility was established and informed consent was taken, participants were then allocated to one of the two groups in alternating order. Participants having even form numbers were allocated to writing intervention group (experimental group). Whereas participants with odd form number became part of non-writing group (control group). After randomization into one of two writing conditions, participants completed the baseline assessments [PANAS (Akhter, 2017; Kercher, 1992), DASS-21 (Aslam & Kamal, 2017; Lovibond & Lovibond, 1995) and WHOQOL BRIEF (Lodhi et al., 2017; WHOQOL Group, 1998)].

Participants in the experimental group were asked to complete an expressive writing task while the control group was thanked for their participation and sent home. The following instructions were given to the experimental group:

Dear Participants, I would be really thankful to you if you would write about your feelings,

thoughts and personal experience regarding your journey of breast cancer-from diagnosis till recovery in the next 4 weeks. This writing can be comprised of the general issues, stressors and conflicts that you have experienced after being diagnosed with breast cancer. I would recommend you write about your deepest emotions for 4 days a week (20 minutes each day). Once you start writing don't stop writing before 20 minutes. There would be no right or wrong sentences nor your work would be checked by anyone. You are supposed to fill in the writing log given to on weekly basis. This writing strategy will facilitate you to enhance your emotional coping strategies independently. Your writing will remain confidential, and you can keep it to yourself. Participants of both groups were contacted and requested to return to complete the post-intervention assessment measures (PANAS,

DASS-21, and WHO QoL). All participants were provided information regarding counseling services prior to sending them home. Following the positive findings of the study, all of the participants were debriefed about the conditions and the effectiveness of this writing intervention. The control group in particular was instructed regarding how to complete the writing intervention.

Statistical Analysis

A mixed multivariate analysis of variance (MANOVA) was used to explore the impact of expressive writing on positive and negative affect, psychological distress, and quality of life among breast cancer survivors.

Results

Details of demographics to be seen in Table 1. Descriptive statistics of demographics including age, marital status, residential area, education, stage of cancer diagnosed, treatment received are presented in Table 1.

Table 1

Descriptive Statistics of Demographic Variables (N=72)

Variables	N (%)	M	SD
Group			
Control group	37(51.39%)		
Experimental Group	35(48.61%)		
Age		31.72	8.62
Marital Status			
Married	16(22.22%)		
Un-married	56(77.22%)		
Education			
Middle	3(4.16%)		
Metric	19(26.38%)		
Intermediate	19(26.38%)		
Bachelors	17(23.61%)		
Masters	14(19.44%)		
Stage of cancer			
Stage 1	52(72.22%)		
Stage 2	15(20.833%)		
Stage 3	5(6.94%)		
Treatment received			
Chemo therapy	54(75%)		
Surgery	18(25%)		

Socio-economic Status

Low socio-economic status	17(23.33%)
Middle socio-economic status	39(54.16%)
Upper socio-economic status	16(22.22%)

Residential Area

Urban areas	38(52.77%)
Rural Areas	34(47.22%)

Note. *M*= Mean, *SD*=Standard Deviation

Table 2

*Results of Multivariate Analysis (Omnibus *F*) (N=72)*

Effect		<i>F</i>	<i>df</i>	<i>p</i>	<i>ηp</i>
Between Subjects	Intercept	3140.67	6.0	< .001	.99
	Group	35.73	6.0	< .001	.76
Within Subjects	Time	69.90	6.0	< .001	.86
	Time*group	50.34	6.0	< .001	.82

Note. *F* = *F* ratio, *p* = significance level, *ηp* = partial ETA squared, *df* = Degree of freedom

To test the main hypothesis of the study, a mixed multivariate analysis of variance (MANOVA) was calculated to test the efficiency of this writing cure (Table 2). The between subject's variable of expressive writing (vs control) and within subject's variable of time (two-levels: pre- and post-intervention) were input with depression, anxiety, stress, positive affect, negative affect and quality of life as outcome variables. The results demonstrated a statistically significant interaction effect of time and group [$F(6) = 50.34, p < 0.001$] with a large effect size (Partial ETA squared = .82). This indicates

that there is a difference in the outcome variables across time and group. Therefore, post-hoc tests were analyzed to further evaluate the results. The significant MANOVA and the post-hoc analyses indicate that the null hypothesis should be rejected. This research study has therefore concluded that the writing intervention has had a significant effect on all of the dependent variables including depression, anxiety, stress, affect and life quality among breast cancer survivors.

Discussion

In Pakistan female breast cancer survivors have limited access to any psychological support which pronounce their vulnerability and high susceptibility to psychological distress. As Pakistani culture supports women to restrain emotional expression among women, which cloaks a woman in

shame, fear and uncertainty particularly in the face of life threatening diagnosis like breast cancer. Expressive writing technique (Pennebaker, 2010) offers a safe space to individuals to confront articulate and process their life experiences effectively. This writing intervention allows emotional

catharsis which has been shown to contribute in fostering psychological resilience.

The present experimental study assessed the helpful psychological effects of expressive writing in female breast cancer survivors. Participants in experimental group were facilitated to unveil their life experiences and repressed emotions while doing this expressive writing intervention.

Expressive writing intervention facilitated the women of rural and urban areas of participants in this study to externalize their distressing emotions which resulted in significant reduction of psychological distress as compared to individuals in control group.

Findings of this experimental study validates the transformative potential of narrative self expression in female breast cancer survivors of rural and urban areas of Pakistan. Hence the hypothesis of this present study has been accepted and we can conclude that writing intervention has resulted into decreased level of psychological distress and negative affect among experimental group participants as compared to control group participants.

Implications

Pakistani female breast cancer survivors come for follow-ups in busy oncology wards in face of unavoidable physical, social and psychological costs (Pennebaker, 2010). These survivors experience lot of emotional burden as an outcome of medical treatment and social stigma associated with breast cancer diagnosis (Banning et al., 2009). In these crucial psycho-social circumstances this very economical therapeutic intervention enabled the writers to relive the good moments of their lives and undo the impacts of crucial life situations. This study has had contributed to existing literature regarding the significance of psychological rehabilitation of breast cancer survivors. The present study will enhance the understanding of medical team and regarding the

psychosocial consequences of cancer diagnosis and its treatment.

Strengths and Future Directions

In the current COVID-19 situation it was difficult to reach out the breast cancer survivors. However, the intention shows that a lot needs to be done for the psychological rehabilitation of the breast cancer survivors as they are in a significant amount of psychological pain. This study facilitated 35 participants to cope with the costs associated with cancer survivorship. Participants who did writing intervention reported that they have started feeling relaxed. This study has facilitated the participants to relive, redo and find peace within themselves. A debriefing session was also conducted in which all of the participants in the control group were also informed and motivated to do this writing intervention. So that they can also feel better and overcome the distress and emotional burden that is associated with cancer diagnosis and survivorship.

Though previous studies have shown that robust effect of expressive writing intervention can be seen after 3- 6 months. Because of time constraint the intervention time was only 4 weeks instead of 3-6 months. However, this study has found significant results, indicating how important emotional expression is in the cultural context of Pakistan.

Limitations

Language barrier was one of the most unavoidable limitation of this study, as many participants from rural areas wanted to participate in this study but they were unable to read and write in Urdu nor in English. This limitation needs to be addressed in future research by translating the assessment scales into other languages as well. Given the number of people in Pakistan who are illiterate, it would also be important to consider other avenues for emotional expression, such as audio-recording or art.

Secondly, most of the participants were not willing to give their expressive writing task diaries to the researcher, only 25 participants shared their writing tasks. Analysis of the content of the writing tasks, therefore, was not feasible for all participants in this study. It would be advantageous to ascertain the contents of the diaries as this would help to understand the exact mechanism of improvement. This limitation could be avoided by future researchers by planning clinic-based writing intervention tasks. This procedure was impossible to conduct in the present study because of COVID-19 situation and time constraint.

Cultural norms and perspectives inhibits asian women to express their emotions effectively. In this study it was difficult to assess the impacts of different cultural contexts with respect to this writing intervention. Therefore, the results of this study cannot be generalized to the diverse cultures present in Lahore and, more broadly, in Pakistan.

Another limitation of this study is that the placebo effect (i.e., the researcher provided additional time and attention to the experimental group during the giving of the instructions) could not be controlled. Future research in Pakistan should consider ways to control for this, such as a condition in which the researcher provides the same amount of time and attention, such as imparting some general psychoeducation to the control group. Furthermore, extending the duration of writing intervention could have facilitated more comprehensive exploration of long terms impacts of expressive writing intervention.

The generalizability of this study have been compromised because of a drop out of 30 participants. Sample attrition could be minimized in future studies by fostering direct communication between the study personnel and participants. Easy access to clinic facilities for post assessment and any

incentive can sustain participants engagement for future studies.

The research findings cannot be generalized to other stages of cancer survivorship and more research is needed to replicate and extend the results of the present study; however, these initial findings are encouraging. They shed light on the possibility of a simple, cost-effective option for reducing the psychological pain associated with breast cancer survivorship in this underserved, vulnerable population.

Ethics Statement

All the ethical standards of APA were met. Informed consent was taken in written form from all the respondents to participate in this study. The approval and permission were taken from the IRB (Institutional Review Board) of the university and ERB (Ethical Review Board) of hospital as well.

Contribution of Authors

Sadia Sultan: Conceptualization, Investigation, Methodology, Data Curation, Formal Analysis, Writing – Original Draft
Elizabeth Maria Schwaiger: Conceptualization, Methodology, Writing - Reviewing & Editing, Supervision

Conflict of Interest

There is no conflict of interest declared by the authors.

Source of Funding

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Data Availability Statement

The datasets of the current study are not available publicly due to ethical reasons but are available from the corresponding author [S.S.] upon the reasonable request.

References

Akhter, N. (2017). Urdu translation and validation of shorter version of Positive Affect and Negative Affect Schedule (PANAS) on Pakistani bank employees. *JPMMA. The*

- Journal of the Pakistan Medical Association*, 67(10), 1517-1523.
- Aslam, N., Kamal, A. (2017). Translation, validation and effectiveness of Depression, Anxiety and Stress Scale (DASS-21) in assessing the psychological distress among flood affected individuals. *Journal of Pakistan Psychiatric Society*, 14(4), 16-20.
- Azam, M., Aslam, M., Basharat, J., Mughal, M. A., Nadeem, M. S., & Anwar, F. (2021). An empirical study on quality of life and related factors of Pakistani breast cancer survivors. *Scientific Reports*, 11(1), 24391.
- Baikie, K. A., & Wilhelm, K. (2005). Emotional and physical health benefits of expressive writing. *Advances in Psychiatric Treatment*, 11(5), 338-346.
- Banning, M., Hafeez, H., Faisal, S., Hassan, M., & Zafar, A. (2009). The impact of culture and sociological and psychological issues on Muslim patients with breast cancer in Pakistan. *Cancer Nursing*, 32(4), 317-324.
- Bhurgri, Y., Bhurgri, A., Nishter, S., Ahmed, A., Usman, A., Pervez, S., Ahmed, R., Kayani, N., Riaz, A., Bhurgri, H., Bashir, I., & Hassan, S. H. (2006). Pakistan--country profile of cancer and cancer control 1995-2004. *JPM. The Journal of the Pakistan Medical Association*, 56(3), 124-130.
- Chu, Q., Wu, I. H., & Lu, Q. (2020). Expressive writing intervention for posttraumatic stress disorder among Chinese American breast cancer survivors: the moderating role of social constraints. *Quality of Life Research*, 29, 891-899.
- Ferlay, J., Héry, C., Autier, P., & Sankaranarayanan, R. (2010). Global burden of breast cancer. *Breast Cancer Epidemiology*, 1-19.
- Gallagher, M. W., Long, L. J., Tsai, W., Stanton, A. L., & Lu, Q. (2018). The unexpected impact of expressive writing on posttraumatic stress and growth in Chinese American breast cancer survivors. *Journal of Clinical Psychology*, 74(10), 1673-1686.
- Gil, F., Costa, G., Hilker, I., & Benito, L. (2012). First anxiety, afterwards depression: psychological distress in cancer patients at diagnosis and after medical treatment. *Stress and Health*, 28(5), 362-367.
- Kercher, K. (1992). Assessing subjective well-being in the old-old: The PANAS as a measure of orthogonal dimensions of positive and negative affect. *Research on Aging*, 14(2), 131-168.
- Lodhi, F. S., Raza, O., Montazeri, A., Nedjat, S., Yaseri, M., & Holakouie-Naieni, K. (2017). Psychometric properties of the Urdu version of the World Health Organization's quality of life questionnaire (WHOQOL-BREF). *Medical Journal of the Islamic Republic of Iran*, 31, 129.
- Lovibond, P. F., & Lovibond, S. H. (1995). The structure of negative emotional states: Comparison of the Depression Anxiety Stress Scales (DASS) with the Beck Depression and Anxiety Inventories. *Behaviour Research and Therapy*, 33(3), 335-343.
- Low, C. A., Stanton, A. L., Bower, J. E., & Gyllenhammer, L. (2010). A randomized controlled trial of emotionally expressive writing for women with metastatic breast

- cancer. *Health Psychology*, 29(4), 460.
- Lu, Q., Dong, L., Wu, I. H., You, J., Huang, J., & Hu, Y. (2019). The impact of an expressive writing intervention on quality of life among Chinese breast cancer patients undergoing chemotherapy. *Supportive Care in Cancer*, 27(1), 165-173.
- Lu, Q., Gallagher, M. W., Loh, A., & Young, L. (2018). Expressive writing intervention improves quality of life among Chinese-American breast cancer survivors: a randomized controlled trial. *Annals of Behavioral Medicine*, 52(11), 952-962.
- Lu, Q., & Stanton, A. L. (2010). How benefits of expressive writing vary as a function of writing instructions, ethnicity and ambivalence over emotional expression. *Psychology and Health*, 25(6), 669-684.
- Pennebaker, J. W. (2010). Expressive writing in a clinical setting. *The Independent Practitioner*, 30, 23-25.
- Stanton, A. L., & Bower, J. E. (2015). Psychological Adjustment in Breast Cancer Survivors. *Advances in Experimental Medicine and Biology*, 862, 231-242. https://doi.org/10.1007/978-3-319-16366-6_15
- Teo, I., Krishnan, A., & Lee, G. L. (2019). Psychosocial interventions for advanced cancer patients: A systematic review. *Psycho-oncology*, 28(7), 1394-1407.
- Warmoth, K., Cheung, B., You, J., Yeung, N. C., & Lu, Q. (2017). Exploring the social needs and challenges of Chinese American immigrant breast cancer survivors: a qualitative study using an expressive writing approach. *International Journal of Behavioral Medicine*, 24(6), 827-835.
- WHOQOL Group. (1998). Development of the World Health Organization WHOQOL-BREF quality of life assessment. *Psychological Medicine*, 28(3), 551-558.
- Wong, D. (2018). Practitioner experiences of online treatment (Doctoral dissertation, University of Southampton).