

國家科學及技術委員會補助專題研究計畫報告

荷爾蒙治療乳癌婦女症狀群集與性生活品質之前瞻縱貫性研究

報告類別：精簡報告
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執行期間：110年08月01日至111年10月31日
執行單位：國立臺灣大學醫學院護理學系暨研究所

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本研究具有政策應用參考價值：否 是，建議提供機關
(勾選「是」者，請列舉建議可提供施政參考之業務主管機關)
本研究具影響公共利益之重大發現：否 是

中華民國 112 年 05 月 16 日

中文摘要：研究背景：

乳癌是全球女性癌症發生率最高的癌症，但近十年乳癌的早期診斷和治療成效與日俱進，使得乳癌存活性之生活品質也逐漸成為照護品質指標之一。研究顯示長期使用荷爾蒙治療可能導致乳癌病人性功能異常進而影響其性生活品質；然而，目前台灣仍缺乏合適的測量工具來了解乳癌病人使用荷爾蒙治療後的性生活品質。

研究目的：

(1)驗證翻譯中文版女性性生活品質 (sexual quality of life-female, SQOL-F) 量表之信效度；(2)探討台灣接受荷爾蒙治療術後乳癌病人的性生活品質現況。

研究方法：

本研究為一年期橫斷性量性研究，以方便取樣招募台灣北區醫學中心乳癌整合門診，接受荷爾蒙治療術後乳癌病人為研究對象，以中文版SQOL-F為測量工具進行問卷調查，並進一步分析問卷之內在一致性(Cronbach's alpha coefficient)以了解問卷之信度，並以因素分析 (exploratory factor analysis) 驗證問卷之效度；同時以描述性統計分析接受荷爾蒙治療術後乳癌婦女之性生活品質現況。

結果：

本研究共收案 252 女性乳癌病人，其中共192 名(76.2%)病人完成了所有自我報告的問卷調查。病人平均年齡為53.88 歲 (SD = 9.73)，多數病人為已婚或訂婚 (75.52%)且已進入更年期 (81.77%)；病人超過70%曾接受放射線治療及40%接受化學治療；近60%目前正接受Tamoxifen(59.38%)治療，其餘大約50%病人則是接受Letrozole (47.92%)治療。問卷之Cronbach's alpha係數為0.93，探索性因素分析顯示此問卷為兩個因子結構，且可解釋76.9%及12.9%的變異數顯示SQOL-F具良好信效度。此外，本研究個案之SQOL-F平均分數為78.98 (標準差=18.79，級距:18~108)，其中71.35%病人性生活品質為中等(級距:51~84)，19.25%病人屬於性生活品質高(>84)，但仍有9.38%病人其性生活品質差(range: 18~50)。

結論和應用：

本研究證實中文版SQOL-F量表是一個可用於測量荷爾蒙治療乳癌病人之性生活品質的良好測量工具，建議臨床可使用SQOL-F量表配合性功能相關測量工具，以評估乳癌婦女性功能與性生活品質問題，並進一步依據測量結果為病人量身訂做介入措施，以改善病人性功能問題所帶來的影響，進而提升其整體的生活品質。

中文關鍵詞：乳癌、荷爾蒙治療、性生活品質

英文摘要：Background:

Breast cancer (BC) has the highest incidence of female cancer globally. However, the early diagnosis and treatment of BC have improved day by day in the past decade, making the quality of life of breast cancer survivors gradually become one of the indicators of quality of care. Studies have shown that hormone therapy may lead to sexual dysfunction in BC women and negatively affect their sexual

quality of life. However, Taiwan still lacks suitable measurements to investigate the sexual quality of life in BC patients receiving hormone therapy.

Purposes:

(1) To validate the reliability and validity of the Chinese version of the sexual quality of life-female (SQOL-F); (2) To explore the sexual quality of life of BC patients receiving hormone therapy.

Methods:

This study is a one-year cross-sectional quantitative research, recruiting women with BC receiving hormone therapy from the breast cancer clinic of Taiwan north district Medical Center through convenient sampling. The Taiwan version of SQOL-F was conducted as the measurement tool. The internal consistency (Cronbach's alpha coefficient) of the SQOL-F was further analyzed to explore the reliability of the SQOL-F, and the validity of the questionnaire was verified by exploratory factor analysis. Descriptive statistics were also used to analyze the sexual quality of life of women with BC receiving hormone therapy.

Result:

A total of 252 female BC patients were enrolled in this study, of which 192 (76.2%) participants completed all self-reported questionnaires. The mean age of the participants was 53.88 years old (SD = 9.73), and most patients were married or engaged (75.52%) and in menopause status(81.77%); more than 70% of them have received radiation therapy, and 40% received chemotherapy; nearly 60% are currently receiving tamoxifen, while the remaining 40% of patients are receiving letrozole (47.92%). The results revealed that the SQOL-F had good internal consistency (Cronbach's alpha = 0.93). Exploratory factor analysis showed that SQOL-F has a two-factor structure and can explain 89.8% of the total variance; accounting for 76.9%, 12.9% of the variance. In addition, the mean score of SQOL-F of the participants was 78.98 (SD=18.79, range: 18~108), of which 71.35% of them indicated that they had medium sexual life quality (score range from 51 to 84), and 19.27% indicated that the quality of sexual was good (score>84). However, almost one-ten of them (9.38%) experiences poor sexual quality of life (score range from 18 to 50).

Conclusions and Implications:

This study confirms that the Taiwan version of the SQOL-F scale is reliable for measuring the sexual quality of life of BC patients receiving hormone therapy. It is suggested that the SQOL-F scale can be used in conjunction with female sexual function index measurement tools in the

future to explore the sexual function and sex quality of life-related problems in BC patients and further tailor the intervention for patients based on the assessment results to decrease the impact of patients' sexual function problems, and then improve their overall quality of life.

英文關鍵詞：breast cancer, hormone therapy, sexual quality of life

Assessing Sexual Quality of Life in Breast Cancer Survivors Undergoing Hormone Therapy: Validation of a Taiwanese Version Scale

Background and Significance

Breast cancer (BC) is prevalent cancer worldwide leading cause of cancer-related deaths (Siegel et al., 2020). In Taiwan, BC incidence has been steadily increasing (Minister of Health and Welfare, 2020), and BC survivors often experience physical and mental discomfort symptoms, including sexual dysfunction. Improving BC survivors' quality of life (QoL) has become a significant focus, particularly in addressing sexual health issues (Farthmann et al., 2016; Malinovsky et al., 2006). However, most studies have used generic measures of QoL that may not capture the unique challenges BC survivors face. The Sexual Quality of Life-Female (SQOL-F) questionnaire is a comprehensive tool for assessing sexual health among BC survivors (Telli & Gürkan, 2019; Kowalczyk et al., 2019; Faghani et al., 2016), but its translation and validation in Taiwan is lacking. This study aims to translate and validate the SQOL-F questionnaire for use among BC survivors receiving hormone therapy in Taiwan and explore the sexual quality of life of BC survivors.

Methods

A 1-year prospective cross-sectional study was conducted to evaluate the reliability and validity of the Taiwan version of the SQOL-F questionnaire. Convenient sampling was used to recruit 252 BC survivors who met the inclusion criteria. The questionnaire included demographic and clinical characteristics, as well as the SQOL-F questionnaire to measure sexual quality of life. The process of translation and validation of the questionnaire included forward and backward translation, expert committee review, preliminary pilot testing, quantitative validation through factor analysis, and internal consistency analysis (Cronbach's alpha coefficient).

Results

The data of 192 BC patients who completed the self-reported questionnaires were analyzed. The participants' mean age was 53.88 years; most were employed (44.79%) or housewives (28.65%). Most were married or engaged (75.52%) and post-menopausal (81.77%). The majority of the participants had early-stage BC, and over 70% of them received radiotherapy, while 40% received chemotherapy. Almost 60% of the participants received Tamoxifen, while the remaining received Letrozole (n=92, 47.92%).

The distribution of SQOL-F scores showed a mean score of 78.98 (SD=18.79, range: 18~108), of which 71.35% of them indicated that they had medium sexual life quality (score range: 51~84), and 19.27% indicated that the quality of sexual was good (score >84). However, almost one-ten of them (9.38%) experiences a poor sexual quality of life (score range: 18~51).

Validating the scale of SQOL-F

During preliminary pilot testing, five breast cancer survivors completed the SQOL-F questionnaire in 5-10 minutes. Participants reported that the instrument was easy to read and complete.

1. Internal reliability

The internal consistency of the SQOL-F questionnaire was evaluated using Cronbach's alpha coefficient, which resulted in a high value of 0.93, indicating excellent internal consistency.

2. Construct validity

The SQOL-F questionnaire demonstrated good construct validity as revealed by the exploratory factor analysis (EFA) conducted on data collected from 192 female breast

cancer survivors. Factor analysis revealed two factors that were labeled "Psychosexual and Self-Feelings" and "Sexual and Relationship Satisfaction" and were selected to represent sexual quality of life, as they accounted for 76.9%, 12.9% of the variance, respectively.

Discussion

This study found a high level of internal consistency for the SQOL-F questionnaire with a Cronbach's alpha coefficient of 0.93, which is consistent with previous studies conducted in the UK, Iran, and European Portuguese settings; Cronbach's alpha coefficient was higher than 0.7 (Maasoumi et al., 2013; Pakpour et al., 2013; Sim-Sim et al., 2022; Symonds et al., 2005). Overall, the high level of internal consistency results of this study, along with those of previous studies, provide strong evidence of the robustness of the SQOL-F questionnaire and support its use in research and clinical practice.

The structure of the SQOL-F questionnaire has been studied in previous research, with some studies showing a unidimensional structure while others show four dimensions. Symonds et al. (2005) and Pakpour et al. (2013) found a unifactorial model to provide the best fit for the data, while Maasoumi et al. (2013) and Sim-Sim et al. (2022) found four dimensions. The differences in findings could be attributed to various factors, such as demographic characteristics of the participants, sample size, cultural differences, and health conditions. The other possible reason is BC patients undergoing surgery and treatment in this study. May experience the negative impact of cancer treatment and breast surgery on body image may have affected psychosexual feelings (Du et al., 2022; Hoyle et al., 2022), leading to the merging of self-feelings and sexual regression into the same factors. Further research is needed to understand better the SQOL-F questionnaire's factors among different populations, including cancer patients.

Additionally, the study found that approximately half of the BC survivors receiving hormone therapy had medium and good sexual quality of life. However, the average total score of SQOL-F in previous studies was lower than the current study (Canzona et al., 2019; Golbasi & Erenel, 2012; Reese et al., 2018). Previous studies found a lower average score in SQOL-F among GI cancer and BC patients (Canzona et al., 2019; Golbasi & Erenel, 2012; Reese et al., 2018) because some participants in the studies refused to complete the questionnaire due to sexual inactivity or having no partners during the survey period. Furthermore, BC survivors undergoing hormone therapy may experience changes in their sexual function, affecting their sexual well-being (Farthmann et al., 2016; Malinovsky et al., 2006). Longitudinal studies are needed to explore the change in BC patients receiving hormone therapy.

However, the sample size of this study was small, which may limit the generalizability of the findings. Future studies with more diverse samples would provide a more comprehensive understanding of the sexual quality of life of BC survivors receiving hormone therapy. Another limitation is self-report measures, which may be subject to bias and social desirability. Future studies should consider using objective measures to validate the present study's findings.

Implication

The SQOL-F questionnaire demonstrated good reliability and validity in measuring the sexual quality of life in this BC population, suggesting that it can be helpful for clinicians in assessing and monitoring sexual function. Furthermore, the findings highlight the need for the conjunction SQOL-F scale with female sexual function index measurement tools in the future to explore the sexual function and sexual quality of life-related problems in BC patients. Thus, further tailoring the intervention for patients based on the assessment results to decrease the impact of patients' sexual function problems and then improve their overall quality of life.

Conclusion

This study provides evidence for the reliability and validity of the SQOL-F questionnaire in measuring the sexual quality of life in BC survivors receiving hormone therapy. The findings highlight the importance of addressing sexual quality of life as part of the overall well-being of BC survivors undergoing hormone therapy. The results of this study can inform the development of tailored interventions to improve the sexual quality of life of BC survivors receiving hormone therapy. However, future studies with more extensive and diverse samples are needed to validate the present study's findings and investigate the factors contributing to the sexual quality of life of BC survivors undergoing hormone therapy.

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110年度專題研究計畫成果彙整表

計畫主持人：張秀如		計畫編號：110-2629-B-002-003-			
計畫名稱：荷爾蒙治療乳癌婦女症狀群集與性生活品質之前瞻縱貫性研究					
成果項目		量化	單位	質化 (說明：各成果項目請附佐證資料或細項說明，如期刊名稱、年份、卷期、起訖頁數、證號...等)	
國內	學術性論文	期刊論文	0	篇	
		研討會論文	0		
		專書	0	本	
		專書論文	0	章	
		技術報告	0	篇	
		其他	0	篇	
國外	學術性論文	期刊論文	0	篇	
		研討會論文	0		
		專書	0	本	
		專書論文	0	章	
		技術報告	0	篇	
		其他	0	篇	
參與計畫人力	本國籍	大專生	0	人次	
		碩士生	1		學習、協助：資料收集與輸入、文獻查證
		博士生	1		學習、協助：IRB申請、與相關單位協商、準備測量工具、聯繫研究參與者、說明研究內容、收集並檢核資料、文獻查證、初步統計分析
		博士級研究人員	0		
		專任人員	0		
	非本國籍	大專生	0		
		碩士生	0		
		博士生	0		
		博士級研究人員	0		
		專任人員	0		
其他成果 (無法以量化表達之成果如辦理學術活動、獲得獎項、重要國際合作、研究成果國際影響力及其他協助產業技術發展之具體效益事項等，請以文字敘述填列。)					

性別分析報告

- 本研究共收案 252 女性乳癌病人，其中共 192 名(76.2%)病人完成了所有自我報告的問卷調查。病人平均年齡為 53.88 歲 (SD = 9.73)，多數病人為已婚或訂婚 (75.52%)且已進入更年期 (81.77%)；病人超過 70%曾接受放射線治療及 40%接受化學治療；近 60%目前正接受 Tamoxifen (59.38%)治療，其餘大約 50%病人則是接受 Letrozole (47.92%)治療。
- 本研究計畫研究對象皆為女性病人，不適用性別分析。