

科技部補助專題研究計畫成果報告 期末報告

存活照護計畫於晚期口腔癌多元族群女性主要照顧者復原力之
研究-趨勢、建構介入模式與縱貫成效評值(第二及三年)
(V03)(第2年)

計畫類別：個別型計畫
計畫編號：MOST 105-2629-B-255-001-MY2
執行期間：106年08月01日至107年10月31日
執行單位：長庚學校財團法人長庚科技大學護理系

計畫主持人：陳淑卿
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報告附件：出席國際學術會議心得報告

中華民國 107 年 10 月 29 日

中文摘要：本研究主要目的為：測試六個月的存活照護計畫(survivorship care plan, SCP) 在晚期口腔癌多元族群主要照顧者照顧負荷、身體狀況、情緒困擾、社會支持、生活品質及復原力的成效。病人於完成治療時收案隨機分派致實驗組與控制組，控制組接受一般常規性照護，實驗組接受存活照護計畫方案，結果測量變項時間點共有四次：基準點(存活照護計畫前，T0)、存活照護計畫方案後一個月(T1)、存活照護計畫方案後三個月(T2)及存活照護計畫方案後六個月(T3)，主要照顧者以“復原力量表(RS)”、“照顧者負荷量表(CRA)”、“困擾溫度計(DT)”、“社會支持量表(MOS SS-m)”、“精簡版生活品質量表(MOS SF-12)”及“基本資料表”，病人以“身體活動功能量表(KPS)”、“日常生活活動量表(ADL)”、“日常生活活動量表(IADL)”及“基本資料表”為測量工具，收案地點於北部某醫學中心放射腫瘤科門診及癌症中心，針對符合收案條件之口腔癌病人及其照顧者進行方便取樣。研究資料以廣義估計方程式(GEE)分析。

介入存活照護計畫方案兩組主要照顧者於復原力、照顧負荷、社會支持、情緒困擾、身體生活品質及心理生活品質無顯著差異。介入存活照護計畫方案後的六個月實驗組的照顧負荷、社會支持及情緒困擾顯著低於控制組。

存活照護計畫方案可使用於晚期口腔癌女性主要照顧者照顧負荷、社會支持及情緒困擾，促進改善照護能力。

中文關鍵詞：多元族群、女性、口腔癌、存活照護計畫、復原力、照顧負荷、社會支持、生活品質。

英文摘要：The purpose of the study was to evaluate the effect of the survivorship care plan on resilience, caregiver burden, social support, distress, physical quality of life, and mental quality of life in female primary caregivers of patients with advanced oral cavity cancer during the survival period. A randomized controlled clinical trial was conducted to evaluate the 6-months SCP. Eligible participants were recruited 6 months after the completion of treatment and randomized into a control group and an experimental group, with the control group patients receiving routine hospital care and the experimental group patients receiving the 6-months SCP. Eligible subjects were assessed for Karnofsky's Performance Status Index (KPS), Katz Activities of Daily Living Scale (ADL), Instrument Activities of Daily Living Scale (IADL), and background information form. Primary caregivers were assessed the related variables using the Resilience Scale (RS), Caregiver Reaction Assessment (CRA), Distress Thermometer (DT), Medical Outcomes Study Social Support Survey-modified (MOS SS-m), Medical Outcomes Study Short Form SF-12 (MOS SF-12), and a background information form. Subjective data

was collected at four time points: before treatment (T0), and then at 1, 3, and 6 months after completing treatment (T1, T2, and T3, respectively). Objective data was assessed at the same time points. The generalized estimating equation (GEE) was used to analyze the data. Study was conducted to recruited subjects from RT outpatients department and cancer center in a medical center in northern Taiwan. The results of this study showed that there were no differences in resilience, caregiving burden, social support, distress, physical quality of life, and mental quality of life between the experimental and control groups involving primary caregivers of patients with advanced oral cavity cancer post-treatment. This study demonstrated that survivorship care plan (SCP) for primary caregivers of patients with advanced oral cavity cancer did not result in significant differences. After 6 months, the experimental group had a significantly larger group \times time interaction for caregiver burden, social support, and distress than the control group. The survivorship care plan should be used for survivorship care and to promote resilience and caregiver burden in female primary caregivers of patients with advanced oral cavity cancer.

英文關鍵詞： Multi-cultural ethnic, Female, Oral cavity cancer, Survivorship care plan, Resilience, Caregiver burden, Social support, Quality of life.

科技部專題研究計畫成果報告撰寫格式

第二三年研究結果報告書

一、說明

科技部基於學術公開之立場，鼓勵一般專題研究計畫主持人發表其研究成果，但主持人對於研究成果之內容應負完全責任。計畫內容及研究成果如涉及專利或其他智慧財產權、違異現行醫藥衛生規範、影響公序良俗或政治社會安定等顧慮者，應事先通知科技部不宜將所繳交之成果報告蒐錄於學門成果報告彙編或公開查詢，以免造成無謂之困擾。另外，各學門在製作成果報告彙編時，將直接使用主持人提供的成果報告，因此主持人在繳交報告之前，應對內容詳細校對，以確定其正確性。

成果報告繳交之期限及種類（期中進度報告及期末報告），應依本部補助專題研究計畫作業要點及專題研究計畫經費核定清單之規定辦理。至報告內容之篇幅，期中進度報告以4至10頁為原則，並應忠實呈現截至繳交時之研究成果，期末報告不得少於10頁。

二、報告格式：依序為封面、目錄、中英文摘要及關鍵詞、報告內容、參考文獻、計畫成果自評、可供推廣之研發成果資料表、附錄。

(一)報告封面：請至本部網站（<https://most.gov.tw>）線上製作（格式如附件一）。

(二)中、英文摘要及關鍵詞 (keywords)。

(三)報告內容：包括前言、研究目的、文獻探討、研究方法、結果與討論（含結論與建議）等。

(四)成果自評表：請就研究內容與原計畫相符程度、達成預期目標情況、研究成果之學術或應用價值(簡要敘述成果所代表之意義、價值、影響或進一步發展之可能性)、是否適合在學術期刊發表或申請專利、主要發現（簡要敘述成果是否具有政策應用參考價值及具影響公共利益之重大發現）或其他有關價值等，作一綜合評估，並請至本部網站線上製作（格式如附件二）。

(五)頁碼編寫：請對摘要及目錄部分用羅馬字I、II、III.....標在每頁下方中央；報告內容至附錄部分請以阿拉伯數字1.2.3.....順序標在每頁下方中央。

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(七)可供推廣之研發成果資料表：

1.研究計畫所產生之研發成果，應至科技部科技研發成果資訊系統（STRIKE系統，<http://ap0569.most.gov.tw/strike/homepageIndex.do>）填列研發成果資料表(如附件三)，循執行機構行政程序，由研發成果推廣單位（如技轉中心）線上繳交送出。

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三、計畫中獲補助國外差旅費，出國進行國際合作與移地研究、出席國際學術會議或出國參訪及考察者，每次均須依規定分別撰寫出國心得報告(其中，出席國際學術會議者須另附發表之論文全文或摘要，但受邀專題演講或擔任會議主持人者不在此限)，並至本部網站線上繳交電子檔，出國心得報告格式如附件五、六、七。

四、計畫中獲補助國外學者來臺費用，每次均須分別撰寫國外學者來臺訪問成果報告，並至本部網站線上繳交電子檔，報告格式如附件八。

五、報告編排注意事項

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(二)格式：中文打字規格為每行繕打(行間不另留間距)，英文打字規格為 Single Space。

(三)字體：以中英文撰寫均可。英文使用 Times New Roman Font，中文使用標楷體，字體大小以 12 號為主。

六、成果報告除敏感科技研究計畫外，應供立即公開查詢。但涉及專利、其他智慧財產權、論文尚未發表者，得延後公開，最長以計畫執行期滿日起算 2 年為限，繳交送出前應填寫公開方式，如需延後公開，應註明原因及延後時間。

科技部補助專題研究計畫成果報告

(期中進度報告/期末報告)

(存活照護計畫於晚期口腔癌多元族群女性主要照顧者復原力之研究-趨勢、建構介入模式與縱貫成效評值 (V03))

計畫類別：個別型計畫 整合型計畫

計畫編號：MOST 105-2629-B-255-001-MY2

執行期間：105年8月1日至107年7月31日

執行機構及系所：

計畫主持人：陳淑卿

共同主持人：林青蓉、彭熙寧、林倩妤、黃炳勝

計畫參與人員：潘美娟

本計畫除繳交成果報告外，另含下列出國報告，共 1 份：

執行國際合作與移地研究心得報告

出席國際學術會議心得報告

出國參訪及考察心得報告

中 華 民 國 107 年 10 月 29 日

報告內容

中文摘要

本研究主要目的為：測試六個月的存活照護計畫(survivorship care plan, SCP) 在晚期口腔癌多元族群主要照顧者照顧負荷、身體狀況、情緒困擾、社會支持、生活品質及復原力的成效。病人於完成治療時收案隨機分派致實驗組與控制組，控制組接受一般常規性照護，實驗組接受存活照護計畫方案，結果測量變項時間點共有四次：基準點(存活照護計畫前，T0)、存活照護計畫方案後一個月(T1)、存活照護計畫方案後三個月(T2)及存活照護計畫方案後六個月(T3)，主要照顧者以“復原力量表(RS)”、“照顧者負荷量表(CRA)”、“困擾溫度計(DT)”、“社會支持量表(MOS SS-m)”、“精簡版生活品質量表(MOS SF-12)”及“基本資料表”，病人以“身體活動功能量表(KPS)”、“日常生活活動量表(ADL)”、“日常生活活動量表(IADL)”及“基本資料表”為測量工具，收案地點於北部某醫學中心放射腫瘤科門診及癌症中心，針對符合收案條件之口腔癌病人及其照顧者進行方便取樣。研究資料以廣義估計方程式(GEE)分析。

介入存活照護計畫方案兩組主要照顧者於復原力、照顧負荷、社會支持、情緒困擾、身體生活品質及心理生活品質無顯著差異。介入存活照護計畫方案後的六個月實驗組的照顧負荷、社會支持及情緒困擾顯著低於控制組。

存活照護計畫方案可使用於晚期口腔癌女性主要照顧者照顧負荷、社會支持及情緒困擾，促進改善照護能力。

關鍵詞：多元族群、女性、口腔癌、存活照護計畫、復原力、照顧負荷、社會支持、生活品質。

Abstract

The purpose of the study was to evaluate the effect of the survivorship care plan on resilience, caregiver burden, social support, distress, physical quality of life, and mental quality of life in female primary caregivers of patients with advanced oral cavity cancer during the survival period. A randomized controlled clinical trial was conducted to evaluate the 6-months SCP. Eligible participants were recruited 6 months after the completion of treatment and randomized into a control group and an experimental group, with the control group patients receiving routine hospital care and the experimental group patients receiving the 6-months SCP. Eligible subjects were assessed for Karnofsky's Performance Status Index (KPS), Katz Activities of Daily Living Scale (ADL), Instrument Activities of Daily Living Scale (IADL), and background information form. Primary caregivers were assessed the related variables using the Resilience Scale (RS), Caregiver Reaction Assessment (CRA), Distress Thermometer (DT), Medical Outcomes Study Social Support Survey-modified (MOS SS-m), Medical Outcomes Study Short Form SF-12 (MOS SF-12), and a background information form. Subjective data was collected at four time points: at treatment (T0), and then at 1, 3, and 6 months after completing treatment (T1, T2, and T3, respectively). Objective data was assessed at the same time points. The generalized estimating equation (GEE) was used to analyze the data. Study was conducted to recruited subjects from RT outpatients department and cancer center in a medical center in northern Taiwan. The results of this study showed that there were no differences in resilience, caregiving burden, social support, distress, physical quality of life, and mental quality of life between the experimental and control groups involving primary caregivers of patients with advanced oral cavity cancer post-treatment. This study demonstrated that survivorship care plan (SCP) for primary caregivers of patients with advanced oral cavity cancer did not result in significant differences. After 6 months, the experimental group had a significantly larger group \times time interaction for caregiver burden, social support, and distress than the control group. The survivorship care plan should be used for survivorship care and to promote resilience and caregiver burden in female primary caregivers of patients with advanced oral cavity cancer.

Keywords: Multi-cultural ethnic, Female, Oral cavity cancer, Survivorship care plan, Resilience, Caregiver burden, Social support, Quality of life.

Background

In 2012, the incidence rate of oral cavity cancer was 300 per 1000 worldwide.¹ Oral cavity cancer is associated with a high prevalence of cancer risk factors (betel nut chewing, smoking, and drinking).²⁻³ Approximately 6300 cases of oral cavity cancer were diagnosed in Taiwan during 2010, with many patients diagnosed with Stage III or IV disease.⁴ The evidence suggests that radical excision and radiation therapy (RT) and surgery with concurrent chemoradiation therapy (CCRT) are the most important modalities for successful advanced oral cavity cancer treatment.⁵ Taiwan's national gender ratio, males are affected significantly more than females, with a ratio of from 9:1 to 9.3:1, reflects the widespread practice of betel quid chewing among males in this country.⁶⁻⁷ However, anti-cancer treatments lead to varying levels of physical and psychological disturbance during treatment and prolong to survival period. The effects can affect primary caregivers' quality of life and the impact on their resilience.⁸ Resilience can be defined as "a dynamic process encompassing positive adaptation within the context of significant adversity."^{9(p543)} Resilience encompasses a range of thoughts (e.g., positive orientation), feelings (e.g., sense of hope) and behaviours (e.g., flexibility, perseverance).⁹ Caregivers' resilience is associated with caregiver burden, social support, emotional distress, and quality of life.

Resilience assessment and survivorship care plan is a specific type of care involving caregiving hardiness that is designed to help women cope with caregiving stress and adjust positively during the survival period. Because of the stigma associated with oral cavity cancer or head and neck cancer, primary caregivers are reluctant to openly discuss their family matters with others, even with relatives. Hence, studying the impact of resilience on primary caregivers' adjustment in oral cavity cancer primary caregivers is even more significant. In Taiwan, most of primary caregivers of oral cancer patients were female (spouse). Recently, new residents moving to Taiwan have generated variations in population structure. Due to multi-cultural ethnic population variations (e.g. aborigines, new residents, southern Fukienese and Hakkanese people) and potential problems related to caregiving hardiness in the advanced oral cavity cancer, females with various levels of resilience may experience influences on their family function.

Understanding resilience issues in multi-cultural ethnic females with advanced oral cavity cancer not only can facilitate the provision of an appropriate survivorship care plan but also can help prevent impairment of coping strategies development and subsequent mental illness in such women.

Purpose

To longitudinally explore trajectories in resilience, caregiving burden, emotional distress, social support, and quality of life and significant factors affecting resilience in multi-cultural ethnic females primary caregivers of patients with advanced oral cavity cancer post-treatment.

Literature Review

Oral Cavity Cancer and Survivorship

Oral cavity cancer is a term used to describe one or more cancers of the oral cavity involving any tissues of the mucosa, muscle, nerve, teeth, bone, blood vessels and saliva gland.¹⁰ Nearly 55% of those diagnosed with oral cavity cancer are at an advanced stage and patients receive surgery followed by radiation therapy (RT) or concurrent chemotherapy and radiation therapy (CCRT).⁷

Advanced cancer stage for oral cavity cancer survivors has been identified as a significant factor that impacts on daily living or quality of life.¹⁷⁻¹⁸ These patients perceived multiple daily care needs,⁸ therefore they were dependent on their primary families for daily living care during the survival period.

Resilience in Primary Caregivers of Patients with Advanced Oral Cavity Cancer

Family resilience was defined as a family's ability to successfully cope with adverse events together that enables them to flourish with family communication, support and hardiness.²⁶⁻²⁹ The family resilience involves four dimensions: intrinsic family characteristic, responsive to stress, externally directed, and family member orientation.³⁰ Elloit et al.³¹ examined resilience in the initial year of caregiving for family member of spinal cord injury and showed that depression symptoms over time revealed 3 groups of caregivers: chronic (24%), recovery (24%) and resilient (48%). The chronic group reported more anxiety, negative affect, and ill health than the other 2 groups. The resilient group was best characterized by their enduring levels of positive affect and supportive social networks. In a qualitative study, Rosenberg et al.³² found that factors of resilience include baseline characteristics (i.e., inherent traits, prior expectations of cancer), processes that evolve over time (i.e., coping strategies, social support, provider interactions), and psychosocial outcomes (i.e., post-traumatic growth and lack of psychological distress).

This ratio is representative of the gender distribution of this type of cancer in Taiwan, in

which 90% to 93% of oral cavity cancer patients are male.⁷ Radiation therapy (RT) and concurrent chemoradiation therapy (CCRT) are recognized as the most effective treatment modality for advanced oral cavity cancer.⁷ The late effects of head and neck cancer patients may occur from several months to years after the completion of treatment. Some of the late effects may occur more than 5 years after treatment.^{16,33} In Taiwan, more than half of primary caregivers of oral cavity cancer were female.³⁴⁻³⁵ Badr et al.³⁶ study showed that patient and caregiver distress increased steadily over the course of radiotherapy, peaking at week 5; patients (82% male; 69% Stage 4) and caregivers (90% female) reported significant distress. Ugur et al.³⁷ also demonstrated that caregivers encounter in the home care of patients included 54.0% of caregivers helped with patient's nutrition, 50.4% with medicine use, 26.3% with oral hygiene, 26.3% with meeting urinary needs and 51.8% with changing clothes. In addition, 69.3% of caregivers helped to change bed sheets, 38.7% assisted patients to communicate with their environment and 71.5% to bring the patient to hospital or outside. The distressing symptom may continue lasting to survival period. Female primary caregivers required assistance with multiple tasks and undertake heavy responsibilities for patient care tasks during this period.

Resilience of primary family caregivers of cancer patients is associated with several characteristics. Patients' disease-related factors among patients are significant predictors of primary caregivers' resilience. Patients with less performance status and shorter time since completion of treatment were significantly depend on family caregiver assistance with activities of daily living, illness management, and family responsibilities.³⁴ Factors that contribute to resilience of primary caregivers have been examined in several studies. Previous studies have revealed an association between caregiving burden and difficult situation, impact on family recover from stressful life event and resilience.^{27, 38} Primary caregivers' resilience is associated with social support. Social support refers to a network of family, friends, neighbors, and community members that is available in times of need to provide psychological, physical, and financial help.³⁹ Social support is a significant factor for caregivers of patients with oral cancer,³⁴ and has been shown to act as a buffer against negative effects on caregiver caregiving.^{38, 40} Previous study has found that caregivers' higher resilience relates to a good emotional and physical status in caregivers.⁴¹ Moreover, resilience is more associated with caregiver variables (e.g. problem-solving skill, age, socioeconomic status, and spirituality).³⁸ Previous research has demonstrated that trait resilience has positive effect on all aspect of quality of life.⁴² Thus, patients' time since completion of treatment, performance status, family caregivers' age, socioeconomic status, spirituality, caregiving burden, emotional distress,

social support, and quality of life may be factors in the primary caregiver resilience in the context of patients with advanced oral cavity cancer.

1. SCP in Previous Studies

3.1. SCP

Cancer survivors face many challenges, including late and long-term effects of treatment and psychological distress regarding follow-up care. Survivorship is a three-stage process: acute, extended, and permanent. No specific timeframes exist for the stages, nor do all patients experience all stages.⁴³⁻⁴⁴ **The acute stage** of survivorship is the time surrounding the initial diagnosis when decisions are made about staging and treatment is initiated. **The extended stage** follows completion of intense treatment and possible remission. Cancer survivors may have ambiguous feelings about being alive while dealing with the uncertainty of treatment outcomes, fear of recurrence, or possibly impending death. They may be negotiating physical and psychosocial compromises.⁴⁵ **The permanent stage** is defined as the achievement of a cure or extended or long-term survival and is presumed to be permanent.^{43-44, 46} Diminished probability for recurrence exists and survivors in this stage may face long-term or late effects of the disease and therapy.⁴⁵ Patients at all stages may benefit from an SCP. The Institute of Medicine (IOM), the University of California Los Angeles Jonsson Comprehensive Cancer Center, and the National Coalition for Cancer Survivorship recommend that an SCP contain the following domains: (a) a summary of the patient diagnosis and treatment, (b) information on recommended follow-up care and secondary prevention, (c) information on the late effects of cancer treatments received, and (d) a list of national and local health promotion resources.⁴⁷

3.2. The effect of an intervention program on caregiver resilience in previous studies

Interventions and provision of care to boost resilience have included biomedical, psychosocial, and educational approaches. A study by Mu et al.⁴⁸ of a family of children with epilepsy showed that a program of enhancing resiliency (family assessment, constructing the meaning, and educational dialogue) significantly reduced both family boundary ambiguity and maternal depression. Another pilot study of a randomized placebo-controlled trial⁴⁹ assessing the effects of an antidepressant drug for family caregivers had similar results, demonstrating improvements in anxiety, resilience, burden, and distress at 12 weeks. Sandler et al.⁵⁰ also found that a family bereavement program promoted resilience in the six years following the death of a parent.

Methods

Design

This phase of the study was consist of a prospective randomized controlled clinical trial. Participants were be randomly assigned to the experimental group (using the SCP) or the

control group (performing routine care).

Inclusion criteria

1. Patients' pathologic confirmation of oral cavity squamous cell carcinoma (OSCC);
2. New diagnosis of oral cavity cancer with cancer stage on III and IV, and received surgery and RT or CCRT and initial completion of treatment to 6 months after completion treatment;
3. Disease free survivors; patients who did not show apparent signs of cancer;
4. Female gender of primary caregivers and age greater than 20 years and less than 70 years;
5. Female of primary caregivers had to be providing uncompensated care or assistance to a patient and be identified by a patient as a primary family caregiver;
6. Agreement to participate in the study after explanation of its purposes and procedures.

Research groups

Experimental group: Primary caregivers were followed the SCP for six months.

Control group: Patients received routine hospital care.

Instrument

Primary caregivers:

1. Resilience Scale (RS)⁵²
2. Caregiver Reaction Assessment (CRA).⁵⁶
3. Distress Thermometer (DT)⁶⁰
4. Medical Outcomes Study Social Support Survey-modified (MOS SS-m)⁶⁴
5. Medical Outcomes Study Short Form SF-12 (MOS SF-12)⁶⁷⁻⁶⁹
6. Demographic and care characteristics

Patients:

1. Karnofsky's Performance Status Index (KPS)⁷⁰
2. Katz Activities of Daily Living Scale (ADL)⁷⁶
3. Instrument Activities of Daily Living Scale (IADL)⁷⁷
4. Background information form

Results

Subject characteristics by group

No significant statistical differences in patients' characteristics between the two groups were identified, indicating that the data for the two groups were homogeneous.

Participants in the experimental and control group were on average 53.53 (SD=8.68) and 56.23 years old (SD=7.59), respectively. The majority of participants in both groups were male (93.3% versus 88.5%), unemployed (83.3% versus 60.0%), married (83.3% versus 84.6%), with a junior/ senior high school education (76.6% versus 65.4%), and held religious beliefs (96.7% versus 96.2%).

Among clinical factors in both groups, the majority of participants were the most common site of cancer was the oral cavity, most treated with surgery combined CCRT, received a total radiotherapy dose of 6000-8400 Gy, and had good performance status (KPS index range, 99-100)(Table 1).

Caregivers demographic and care characteristics by group

Caregivers in the experimental group and control group were on average 49.60 (SD=11.72) and 49.62 (SD=12.19) years old, respectively. Most caregivers in the experimental group and control group were female (96.7% versus 92.3%).

Approximately half of the patients in both groups were unemployed (56.7% versus 46.2%), and had graduated from senior (46.7% versus 46.2%). The majority of participants in both groups held Buddhism/Taoism religious beliefs (96.7% versus 92.3%), were spouse (80.0% versus 80.8%), lived with patients (100% versus 92.3%), were rotation with other family members (80.0% versus 84.6%), and had previous care experiences (53.3% versus 50.0%). Caregivers in the experimental group and control group were on average 3.37 (SD=1.88) and 2.85 (SD=1.35) caregiving time, respectively (Table 2).

Comparison of group outcomes at baseline

Independent *t*-tests compared the two groups in resilience, caregiving burden, social support, distress, physical quality of life, and mental quality of life. At baseline, the groups had no statistically significant differences in any of these factors (Table 3).

Effects of the survivorship care plan on the outcome variables

Data for each outcome variable at pretest (baseline) and posttest (6-months after receiving survivorship care plan) are presented in Table 4. For both groups, all outcome variables had no statistically significant differences between groups. After 6 months, the experimental group had a significantly larger group \times time interaction for caregiver burden ($F_{in} = 19.248$, $p < 0.01$), social support ($F_{in} = 3.230$, $p < 0.05$), and distress ($F_{in} = 2.896$, $p < 0.05$) than

the control group (Table 4).

Conclusion

The results of this study showed that there were no differences in resilience, caregiving burden, social support, distress, physical quality of life, and mental quality of life between the experimental and control groups involving primary caregivers of patients with advanced oral cavity cancer post-treatment. This study demonstrated that survivorship care plan (SCP) for primary caregivers of patients with advanced oral cavity cancer did not result in significant differences. After 6 months, the experimental group had a significantly larger group \times time interaction for caregiver burden, social support, and distress than the control group (Table 4).

Table 1. Patients characteristics by group (N=56)

Characteristics	EG (N =30)	CG (N = 26)	X^2/t	<i>p</i>
	N(%) / Mean(SD)	N(%) / Mean (SD)		
Age	53.53(8.68)	56.23(7.59)	1.229	0.224
Gender				
Female	2(6.7)	3(11.5)		
Male	28(93.3)	23(88.5)		
Occupation			0.407	0.524 ^a
Unemployed	25(83.3)	18(60.0)		
Employed	5(16.7)	8(69.2)		
Marital status			1.758	0.415 ^a
Unmarried	5(16.7)	4(15.4)		
Married	25(83.3)	22(84.6)		
Education level			5.571	0.234 ^a
None	1(3.3)	0(0)		
Elementary	5(16.7)	6(23.1)		
Junior high	13(43.3)	5(19.2)		
Senior high	10(33.3)	12(46.2)		
College and above	1(3.3)	3(11.5)		
Religion			2.419	0.298 ^a
None	1(3.3)	1(3.8)		
Buddhism/ Taoism	29(96.7)	23(88.5)		
Christianity/ Catholicism	0(0)	2(7.7)		
Medical treatments			0.078	0.780 ^a
Surgery + CCRT	24(80.0)	20(76.9)		
Surgery + RT	6(20.0)	6(23.1)		
Surgery + CT	0(0)	0(0)		
Radiotherapy, total dose, cGy	6520.00(304.45)	6263.85(1204.42)	-1.126	0.265
Performance status	97.33(5.21)	98.85(3.26)	1.279	0.206

^a Fisher's exact test.

EG =experimental group; CG =control group.

Table 2. Caregivers demographic and care characteristics by group (N=56)

Characteristics	EG (N =30)	CG (N = 26)	X^2/t	<i>p</i>
	N(%) / Mean(SD)	N(%) / Mean (SD)		
Age	49.60(11.72)	49.62(12.19)	0.005	0.996
Gender			0.407	0.524 ^a
Male	1(3.3)	2(7.7)		
Female	29(96.7)	24(92.3)		
Occupation			5.884	0.318
Unemployed	17(56.7)	12(46.2)		
Employed	13(43.3)	14(53.8)		
Educational level			0.891	0.926 ^a
None	1(3.3)	1(3.8)		
Elementary	6(20.0)	6(23.1)		
Junior high	7(23.3)	4(15.4)		
Senior high	14(46.7)	12(46.2)		
College and above	2(6.7)	3(11.5)		
Religion			4.250	0.114 ^a
None	1(3.3)	2(7.7)		
Buddhism/Taoism	29(96.7)	21(80.8)		
Christianity	0(0)	3(11.5)		
Relationship to patient (spouse)			4.078	0.253 ^a
No	6(20.0)	5(19.2)		
Yes	24(80.0)	21(80.8)		
Live with patient			2.393	0.122 ^a
No	0(0)	2(7.7)		
Yes	30(100)	24(92.3)		
Rotation with other family members			0.202	0.653 ^a
No	6(20.0)	4(15.4)		
Yes	24(80.0)	22(84.6)		
Previous care experiences			0.062	0.803
No	14(46.7)	13(50.0)		
Yes	16(53.3)	13(50.0)		
Caregiving time for each day (hour)	3.37(1.88)	2.85(1.35)	-1.172	0.246

^a Fisher's exact test.

EG =experimental group; CG =control group.

Table 3. Comparison of group outcomes at baseline (N=56)

Variable	EG (n =30)		CG (n =26)		t	p
	Mean	SD	Mean	SD		
Resilience (RS) ^a	4.75	0.73	4.87	0.70	0.633	0.529
Caregiving Burden(CRA) ^b	3.09	0.28	3.09	0.27	0.069	0.528
Social Support (MOS) ^c	57.24	15.14	62.35	20.54	1.069	0.290
Distress(DT) ^d	4.60	2.37	5.12	2.25	0.830	0.410
Physical-QOL ^e	55.79	4.87	51.89	9.92	- 1.910	0.062
Mental-QOL ^e	44.11	13.59	46.60	11.98	0.720	0.474

Baseline =before the SCP

EG =experimental group; CG =control group

^a RS = Resilience Scale.

^b CRA = Caregiving Reaction Scale.

^c MOS = Medical Social Support.

^d DT = Distress Thermometer

^e Physical-QOL, Mental-QOL = Medical Outcomes Study Short Form SF-12.

Table 4. Mixed model: repeated measures of resilience, caregiver burden, social support, distress, physical-QOL, and mental-QOL by group (N=56)

Variable	Pretest ^a	Posttest ^b	Between-groups, $F_b (p)^c$	Within-times, $F_w (p)^d$	Interaction, $F_{in} (p)^e$
	Mean±SE	Mean±SE			
Resilience			0.231 (0.633)	1.111 (0.336)	2.472 (0.084)
EG	4.75±0.13	4.78±0.08			
CG	4.87±0.14	4.94±0.12			
Caregiver burden			0.021 (0.886)	19.248 (<0.001 [*])	0.180 (0.864)
EG	3.08±0.05	2.91±0.05			
CG	3.09±0.05	2.88±0.06			
Social support			1.136 (0.291)	3.230 (<0.05 [*])	0.781 (0.469)
EG	57.24±2.76	61.58±2.51			
CG	62.35±4.03	66.63±3.00			
Distress			0.322 (0.573)	2.896 (<0.05 [*])	0.244 (0.830)
EG	4.60±0.43	4.00±0.41			
CG	5.12±0.44	4.19±0.42			
Physical-QOL			3.377 (0.072)	0.997 (0.390)	0.610 (0.592)
EG	55.79±0.89	55.55±0.73			
CG	51.89±1.95	52.77±1.76			
Mental-QOL			3.040 (0.087)	1.792 (0.165)	0.560 (0.598)
EG	44.11±2.48	44.62±2.10			
CG	46.60±2.35	48.28±2.36			

^a Measured before the SCP.

^b Measured at 6-months after receiving survivorship care plan (SCP).

^c F_b : the F value between groups comparison.

^d F_w : the F value within pre- and post-test.

^e F_{in} : the F value of the interaction of between groups and within pre- and post-test.

^g EG =experimental group.

^h CG =control group.

* $p < 0.05$

** $p < 0.01$

*** $p < 0.001$

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科技部補助專題研究計畫出席國際學術會議心得報告

日期：106 年 5 月 31 日

計畫編號	MOST 105—2629—B—255—001—MY2		
計畫名稱	存活照護計畫於晚期口腔癌多元族群女性主要照顧者復原力之研究-趨勢、建構介入模式與縱貫成效評值 (V03)		
出國人員姓名	陳淑卿	服務機構及職稱	長庚科技大學護理系所/教授
會議時間	105 年 11 月 10 日至 105 年 11 月 13 日	會議地點	日本京都
會議名稱	(中文)第十六屆亞洲天主教醫生協會聯盟會議 (英文) The 16th AFCMA Congress 2016 (Asian Federation of Catholic Medical Associations)		
發表題目	(中文)女性病人頭頸癌自覺身體心像與醫療人員評估外觀毀損之差異及其相關因素 (英文) Factors associated with disfigurement and body image in female patients with head and neck cancer: Comparison of ratings among healthcare professionals versus patients.		

一、參加會議經過

本會議每四年舉行一次，該次會議主要來自亞洲地區的國家及少數歐美國家的醫護照護專家學者，由日本、印度、韓國、日本、台灣等國家老人長期照護專家分享其照護模式及現況，台灣此次共有 20 多位學者專家與會多來自台灣各大醫療院所的臨床照護專家與會並發表論文，照護主題涵蓋臨床照護、慢性病照護、長期照護等，能藉此機會有機會與其他國家籍不同專業領域的專家交流與認識，並將此次學習經驗帶回台灣癌症護理臨床照護與未來研究規劃，期望爾後台灣每屆會議均能有代表參加，期望能有機會與專家學者進行交流。

二、與會心得

1. 日本、印度、韓國、日本、台灣等國家老人長期照護模式及差異。
2. 從不同場次的專業研討會及海報論文中學習在不同領域模式中建構臨床照護的方法，如：老人長期照護介入措施、成效評值等。
3. 日本學者分享長期照護社會福利及政策制度。

三、發表論文全文或摘要

四、建議

無

五、攜回資料名稱及內容

研討會手冊及論文相關手冊

六、其他

無

科技部補助專題研究計畫出席國際學術會議心得報告

日期：107 年 7 月 9 日

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計畫名稱	存活照護計畫於晚期口腔癌多元族群女性主要照顧者復原力之研究-趨勢、建構介入模式與縱貫成效評值 (V03)		
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三、發表論文全文或摘要

四、建議

無

五、攜回資料名稱及內容

研討會手冊及論文相關手冊

六、其他

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科技部補助專題研究計畫出席國際學術會議心得報告

日期：106 年 5 月 31 日

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三、發表論文全文或摘要

四、建議

無

五、攜回資料名稱及內容

研討會手冊及論文相關手冊

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日期：107 年 7 月 9 日

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四、建議

無

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研討會手冊及論文相關手冊

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105年度專題研究計畫成果彙整表

計畫主持人：陳淑卿			計畫編號：105-2629-B-255-001-MY2				
計畫名稱：存活照護計畫於晚期口腔癌多元族群女性主要照顧者復原力之研究-趨勢、建構介入模式與縱貫成效評值(第二及三年)(V03)							
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		40	篇	請見個人履歷著作登錄	
		研討會論文		8		請見個人履歷著作登錄	
		專書		0	本		
		專書論文		0	章		
		技術報告		0	篇		
		其他		0	篇		
	智慧財產權及成果	專利權	發明專利	申請中	0	件	
				已獲得	0		
			新型/設計專利		0		
		商標權		0			
		營業秘密		0			
		積體電路電路布局權		0			
		著作權		0			
		品種權		0			
		其他		0			
	技術移轉	件數		0	件		
		收入		0	千元		
	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			
智慧財產權及成果		專利權	發明專利	申請中	0	件	
				已獲得	0		
			新型/設計專利		0		
		商標權		0			
		營業秘密		0			
		積體電路電路布局權		0			
		著作權		0			
		品種權		0			

		其他	0		
	技術移轉	件數	0	件	
		收入	0	千元	
參與計畫人力	本國籍	大專生	0	人次	
		碩士生	0		
		博士生	0		
		博士後研究員	0		
		專任助理	0		
	非本國籍	大專生	0		
		碩士生	0		
		博士生	0		
		博士後研究員	0		
		專任助理	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。)					

科技部補助專題研究計畫成果自評表

請就研究內容與原計畫相符程度、達成預期目標情況、研究成果之學術或應用價值（簡要敘述成果所代表之意義、價值、影響或進一步發展之可能性）、是否適合在學術期刊發表或申請專利、主要發現（簡要敘述成果是否具有政策應用參考價值及具影響公共利益之重大發現）或其他有關價值等，作一綜合評估。

1. 請就研究內容與原計畫相符程度、達成預期目標情況作一綜合評估

達成目標

未達成目標（請說明，以100字為限）

實驗失敗

因故實驗中斷

其他原因

說明：

2. 研究成果在學術期刊發表或申請專利等情形（請於其他欄註明專利及技轉之證號、合約、申請及洽談等詳細資訊）

論文： 已發表 未發表之文稿 撰寫中 無

專利： 已獲得 申請中 無

技轉： 已技轉 洽談中 無

其他：（以200字為限）

3. 請依學術成就、技術創新、社會影響等方面，評估研究成果之學術或應用價值（簡要敘述成果所代表之意義、價值、影響或進一步發展之可能性，以500字為限）

本年度介入性研究第一年計畫發現口腔癌照顧者在介入存活照護計劃後可改善六個月後的照顧負荷，因此，根據此階段的發現，研究人員將持續介入存活照護計劃居家照護訓練方案，以提升照顧者復原力。

4. 主要發現

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

說明：（以150字為限）