ผลของโปรแกรมอัตลิขิตต่อความผาสุกทางจิตของผู้ดูแลผู้ป่วยมะเร็งที่ได้รับการรักษาแบบประคับประคอง

The Effect of a Self-Determination Program on the Psychological Well-Being of Caregivers of Palliative Cancer Patients

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บทคัดย่อ

การวิจัยกึ่งทดลองนี้มีวัตถุประสงค์เพื่อศึกษาผลของโปรแกรมอัตลิขิตต่อความผาสุกทางจิตของผู้ดูแลผู้ป่วยมะเร็งที่ได้รับการรักษาแบบประคับประคอง กลุ่มตัวอย่างเป็นผู้ดูแลผู้ป่วยมะเร็งที่ได้รับการรักษาแบบประคับประคอง คัดเลือกกลุ่มตัวอย่างตามเกณฑ์การคัดเข้าจำนวน 60 คน สุ่มอย่างง่ายเข้ากลุ่มทดลองและกลุ่มควบคุม กลุ่มละ 30 คน กลุ่มทดลองได้รับโปรแกรมที่ผู้วิจัยได้พัฒนาตามแนวคิดทฤษฎีอัตลิขิต ประกอบด้วย 10 กิจกรรม ดำเนินกิจกรรม 1 ครั้ง/สัปดาห์ ครั้งละ 90 นาที รวม 10 สัปดาห์ กลุ่มควบคุมได้รับการดูแลตามปกติ ประเมินผลโดยใช้แบบวัดความผาสุกทางจิต มีค่าดัชนีความสอดคล้องของคำถามกับเนื้อหา เท่ากับ 1.0 และมีค่าความเชื่อมั่นเท่ากับ .88 วัดผลก่อนการทดลองและสิ้นสุดการทดลองทันที วิเคราะห์ข้อมูลโดยใช้สถิติเชิงพรรณนาและสถิติทดสอบค่าที

ผลการวิจัย 1) คะแนนเฉลี่ยความผาสุกทางจิตของกลุ่มทดลองหลังได้รับโปรแกรม มีคะแนนเฉลี่ย สูงกว่าก่อนการทดลองอย่างมีนัยสำคัญทางสถิติที่ระดับ .001 2) ผลต่างคะแนนเฉลี่ยความผาสุกทางจิต ระหว่างก่อนและหลังการได้รับโปรแกรมของกลุ่มทดลอง แตกต่างจากกลุ่มควบคุม อย่างมีนัยสำคัญทางสถิติที่ระดับ .001

สรุป โปรแกรมอัตลิขิตสามารถเพิ่มความผาสุกทางจิตในผู้ดูแลผู้ป่วยมะเร็งที่ได้รับการรักษาแบบประคับประคองได้อย่างมีประสิทธิผล โดยสามารถเป็นอีกทางเลือกหนึ่งในการส่งเสริมความผาสุกทางจิตของผู้ดูแลผู้ป่วยมะเร็งได้

คำสำคัญ: ความผาสุกทางจิต, โปรแกรมอัตลิขิต, ผู้ดูแลผู้ป่วยมะเร็งที่ได้รับการรักษาแบบประคับประคอง

Abstract

The purpose of this quasi-experimental research was to determine the effect of a self-determination program on the psychological well-being of caregivers of cancer patients receiving palliative care. The samples were caregivers of cancer patients who received palliative treatment. The samples were selected according to the inclusion criteria, 60 people were simply randomly assigned to either an experimental group or a control group with 30 subjects each. The experimental group received the self-determination program developed by

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the researcher according to Self-Determination Theory consisting of ten activities. Each activity was carried out weekly for 90 minutes per session for a total of 10 weeks. The control group received usual care and the results were assessed using the Psychological Well-Being Scale (PWBS), Thai version. The reliability was determined with a Cronbach's alpha coefficient of .88. The results were measured before the experiment and immediately after the experiment. The data were analyzed using descriptive statistics and t-test statistics.

The findings can be summarized as follows: 1) the mean score for psychological well-being of the experimental group after the self-determination program was higher than at pretest with statistical significance at .001; 2) the mean difference scores for psychological well-being between before and after the self-determination program in the experimental group were different from the control group with statistical significance at .001.

In conclusion, the self-determination program was able to increase psychological well-being among caregivers of palliative cancer patients effectively. This can be another option to promote the psychological well-being of cancer caregivers.

Keywords: caregivers of palliative cancer patients, psychological well-being, self-determination program

Introduction

Cancer is a major global health problem. Due to incidence, disease severity and mortality rates, patients and family caregivers lose good quality of life. According to a report on the situation from the World Health Organization in 2020, 19.2 new cancer patients who need care from family caregivers were found in 2020.[1] In Thailand, the survey data from the National Cancer Institute in 9,842 new patients found 2,890 patients (29.40%) with cancer in 2020.[2] In Thai society, when a family member is sick, family members have the duty to provide assistance and care for patients by providing voluntary palliative care without wages.[3] Family caregivers are usually spouses, parents, children, friends or relatives who are important to patients.[4]

Palliative care is care for good quality of life among cancer patients and family members by preventing and reducing suffering from illness[5] by providing care from when patients were diagnosed to the end of life. Caregivers of cancer patients have to improve personal capabilities in many areas such as communication, caring skills and abilities, knowledge, and decision-making.[6-7] Caregivers may experience a psychological or spiritual crisis, when seeing their loved one suffering from physical and psychological discomfort. This may have similar emotional effects on caregivers' negative feelings including anxious, stressed, and may have depression unconsciously.[8]

According to the indicative review, psychological effects on caregivers of cancer patients can be include sadness, anger, guilt, loneliness, stress and strain.[9-11] The aforementioned effects on caregivers are significantly related to physical and psychological health progress of patients. Increased severity may cause negative effects on psychological well-being and cause patients to become exhausted, lack of motivation to do good deeds and have changes in perception of care from positive to negative perceptions, which may lead to caregivers becoming burned out and unable to continue caring for patients.

The factors correlated with psychological well-being among caregivers of palliative cancer patients were divided into the following three groups: 1) personal factors such as age, gender, education, and perception of patients' suffering; 2) familial factors

such as family income; 3) social factors such as social networks and a beneficial and supporting environment.[12-14]

Many methods are used to promote psychological well-being for caregivers of cancer patients such as caring skill development, adaptation promotion, coping skill practices, empowerment, perceived self-efficacy, mental health education and consultation.[15-18] Most of the methods are focused on promoting individuals to have skills and ability to manage themselves and society. However, most programs were used to solve problems of caregivers with psychological illness. Therefore, promotion of psychological illness prevention among caregivers of cancer patients is a challenging issue in preparing caregivers of palliative cancer patients to enable caregivers of cancer patients to effectively cope with problems and barriers that may cause psychological suffering along with enabling management of fatigue, conversion of energy for self-improvement and psychological well-being.

Psychological well-being (PWB)[19] is a concept with multidimensional views covering positive psychological characteristics with diversity connected to good mental health or prevention of problematic behaviors. Ryff and Keyes[19] defined psychological well-being as psychological comfort from self-acceptance, autonomy, positive relations with others, environmental mastery and personal growth, which leads to purpose in life. Care for palliative cancer patients is a heavy burden impacting on psychological well-being at every stage of illness.[20] Therefore, caregivers of cancer patients are a group at risk of mental health problems. Thus, medical personnel should have awareness of and support promotion of psychological well-being among caregivers.

Deci and Ryan[21] stated that well-being occurs only when there is a basic psychological need such as need for autonomy, need for competence, and need for relatedness. In the area of health promotion, Intrinsic motivation has been widely used, where past the Self-Determination Theory (SDT) health behavior interventions had a positive impact on health behaviors in the immediate post-trial period, and during the follow-up period.[22] Individuals with an intrinsic motivation for performing behaviors of interest to that person will experience enjoyment, excitement, challenge, and self-confidence.[21,23] The independent motivations associated with psychological well-being and positive relationships were positively correlated. There was a negative correlation with caregiver distress and fatigue.[24]

According to the aforementioned literature review, promotion of Intrinsic motivation according to the conceptual framework of Deci & Ryan[21] was highly successful in the areas of health behavior development, health promotion, and maintaining health. Therefore, the researcher used the Self-Determination Theory to develop the self-determination program promoting psychological well-being for caregivers of palliative cancer patients in order to push for caregivers of cancer patients to increased determination, motivation, retention and enhancing desirable ideas, feelings and behaviors,[23] which created capacity leading to psychological well-being.

Objectives

1. To compare psychological well-being among caregivers of palliative cancer patients before and after received the self-determination program.

2. To compare psychological well-being of caregivers of palliative cancer patients between the experimental group which received the self-determination program and the control group which received usual care.

Research Hypotheses

1. The mean scores for psychological well-being among caregivers of palliative cancer patients in the experimental group after receiving the self-determination program will be higher than their baseline.

2. The mean difference scores of psychological well-being among caregivers of palliative cancer patients between before and after of the experimental group which received the self-determination program were different from the control group which received usual care.

Conceptual framework

This research was based on the concept of the Self-Determination Theory (SDT),[21] It describes the role of intrinsic motivation in the development of thought, attitudes, and society, as well as individual differences in behavioral practices. In which individuals will use motivation as a driving force towards target behaviors, turning obstacles into challenges by using 3 factors including: 1) Need for competence, 2) need for autonomy, and 3) need for relatedness. Individuals will learn to develop their own self-directed behaviors with autonomy, competencies, and positive relationships with others, resulting in an increase in determination and persistence. which leads to good psychological well-being.

Methods

This study was quasi-experimental research two group pretest-posttest design. The population in this study was male and female caregivers of palliative cancer patients aged 18 years or older who were living in the same family with cancer patients who interacted with one another and lived in Sam Roi Yod, Prachuabkhirikhan province. The research sample was selected using simple random sampling: subjects in one sub-district were assigned to the control group and those in another sub-district were assigned to the experimental group. Both sub-districts were similar in contexts.

Sample size was calculated using the G*power program.[25] Reliability was set at .05 and power of the test was set at 80 percent. Effect size was determined from previous studies of similar variables and populations.[26] An effect size of 0.83 and the sample size of 52 subjects was obtained. The researcher enlarged the sample size by 15 percent, bringing the sample size to 60 subjects with 30 subjects for each group to account for expected attrition.[27]

Research Instruments

1. Data collection instruments-The Thai version of the psychological well-being questionnaire[28] was developed by Ryff and Keyes.[19] Questions were assessments of components in six areas consisting of self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life and personal growth. The form had a total of 84 questions with 14 questions in each area. In terms of instrument quality, the instrument had tested for content validity with an index of item-objective congruence (IOC) of 1.00[28] and the reliability score was a Cronbach's Alpha Coefficient of .88.

2. The instrument used in the experiment was the self-determination program developed by the researcher based on the self-determination theory of Deci and Ryan.[21] The instrument passed program quality tested by three qualified experts. After the program was examined by qualified experts, the researcher has adjusted the language to be easier to understand and the explanations of some activities have been made clear. The researcher tried out the program with 10 caregivers of cancer patients who had characteristics similar to the sample to make

appropriate modifications before use. Activities in the program were held in 10 sessions, 90 minutes per session. In addition, the sample was assigned to practice at home for 15 minutes per day. Therefore, this program used a total of 30 hours and 45 minutes.

Ethical Considerations

This study was approved by the Human Research Ethics Committee of Thammasat University (Science), project Code COA No. 102/2564. All subjects were informed about the purpose of the study before participating with voluntary. They could refuse to participate or withdraw from the study at any time without any effects on their performance evaluation. The information obtained from the study is confidential and will be presented in overall, not individually. The subjects were asked to sign a consent form.

Research Procedures

The researcher reviewed related textbooks, academic articles, research and practice using the program in the experiment. The researcher selected the sample based on set qualifications and measured pretest psychological well-being. The experimental group received the self-determination for 10 consecutive weeks. Each activity was carried out weekly for 90 minutes per session for a total of 10 weeks. The control group received usual care. At the end of activities, the researcher assessed the psychological well-being posttest of the two sample groups with the research assistant conducting the evaluation activities. However, during the activities of the whole project, there was no loss of samples.

Data Analysis

Personal data were analyzed with frequency distribution and percentages. Differences in personal data between were tested using Chi-square testing and Fisher's exact test. The mean scores for psychological well-being of the experimental group were compared using dependent t-test statistics. The mean differences scores for psychological well-being between pretest-posttest of the experimental and control groups were compared using independent t-test statistics.

Results

According to the findings, the experimental group had a mean age of 57.60 years while the control group had a mean age of 47.40 years. A majority of the sample was female (66.7%). In terms of financial status, most participants in the experimental group were found to have sufficient income without savings (76.3%), followed by sufficient income with savings (13.3%). The majority of the control group reported having sufficient income without savings (53.3%), followed by sufficient income with savings and insufficient income with debt (23.3% each). Concerning marital status, most of the experimental and control groups were married (80% and 56.7%, respectively), followed by single (13.3% and 33.3%, respectively) and widowed (6.7% and 10%, respectively). In the area of history of chronic illnesses in the experimental group, most of the sample reported having no chronic illnesses (50%), followed by having chronic illnesses (40%) and were never examined (10%). Most of the control group was found to have chronic illnesses (43.3%), followed by subjects who had no chronic illnesses (40%) and were never examined (16.7%). Most participants in both groups have cared for patients with families (73.3% and 86.7%, respectively), followed by the sample who cared for patients alone (26.7% and 13.3%, respectively). The Results comparing the demographic data between the experimental and control groups with the Chi-square test and Fisher's exact test were found to be no different ($p > .05$).

Table 1 Comparison of mean pretest-posttest scores for psychological well-being.

Psychological well-being scores	Pretest		Posttest		df	t	p-value
	M	SD	M	SD			
Self-acceptance	61.50	5.65	68.57	5.86	29	4.69	.00
Purpose in life	62.70	7.82	71.30	7.62	29	5.27	.00
Autonomy	54.67	5.94	59.83	6.66	29	4.66	.00
Personal growth	61.70	8.17	70.77	8.14	29	6.41	.00
Positive relations with others	62.33	7.65	72.53	5.69	29	6.24	.00
Environmental mastery	58.30	5.40	67.53	7.08	29	7.91	.00
Psychological well-being	360.60	26.19	410.67	30.68	29	8.83	.00

According to Table 1, the mean scores of psychological well-being in self-acceptance aspect of the experimental group at posttest (M = 68.57, SD = 5.86) was higher than pretest scores (M = 61.50, SD = 5.65) with statistical significance at .001. In the area of purpose of life, the average posttest score (M = 71.30, SD = 7.62) were higher than the pretest score (M = 62.70, SD = 7.82) with statistical significance at .001. For the autonomy aspect, the posttest score (M = 59.83, SD = 6.66) was also higher than pretest score (M = 54.67, SD = 5.94) with statistical significance at .001. Regarding personal growth, the mean posttest score (M = 70.77, SD = 8.14) was higher than the pretest score (M = 61.70, SD = 8.17) with statistical significance at .001. In the area of positive relations with others, the posttest score (M = 72.53, SD = 5.69) were higher than the pretest score (M = 62.33, SD = 7.65) with statistical significance at .001. In the environmental mastery aspect, the mean posttest score (M = 67.53, SD = 7.08) was also higher than the pretest score (M = 58.30, SD = 5.40) with statistical significance at .001. The total mean posttest scores (M = 410.67, SD = 30.68) were higher than pretest scores (M = 360.60, SD = 26.19) with statistical significance at .001.

Table 2 Comparison of mean difference scores between pretest-posttest of psychological well-being of the experimental and control groups

Psychological well-being scores	Experimental group (n = 30)			Control group (n = 30)			df	t	p -value
	M	$\bar{D}_1$	SD	M	$\bar{D}_2$	SD			
Pretest	360.60	50.07	31.05	371.67	3.43	31.19	58	5.80	.00
Posttest	410.67			374.43					

According to table 2, when mean differences scores for overall psychological well-being were considered in the experimental and control groups, mean difference scores between pre- and posttest of psychological well-being of the experimental group ($\bar{D}_1$ = 50.07, SD = 31.05) were different from the control group ($\bar{D}_2$ = 3.43, SD = 31.19) with statistical significance.

Discussion

After the self-determination program, caregivers of cancer patients in the experimental group had the mean scores for psychological well-being in all aspects higher than their pretest scores with statistical significance at .001. That means the self-determination program was beneficial to increase psychological well-being among caregivers of cancer patients. The self-determination program was divided into 10 activity sessions which can be considered a key of success of this program. The designed activities respond to three basic psychological needs that influence psychological well-being in the following six dimensions. Factor 1: Need for relatedness was a need to interact with others with friendliness and honesty. Internal motivation will grow in contexts where the person feels secure and has a good relationship.[21,29] This factor had three activities. Activity 1 was the first activity in which the sample created relationships. Due to good relationships and familiarity, group members cooperated in activities and created motivation to participate.[19] This was followed by Activity 4, which promoted positive relationships with family members, creative positive communications.[30] In the last activity, supported perceptions of positive relationships with group members and how knowledge and skills from group members' experiences and the researcher can be used to develop psychological well-being. However, each activity had inserted to encourage a good relationship with other people, including the community and family.

Factor 2: Need for autonomy was control over personal fate based on independence.[21,29] Three activities were designed. Activity 2 supported caregivers' identities with a focus on independent of expression in the areas of ideas and decision-making. At first, caregivers remained confused about how to gain autonomy after being forced to or needing to care for patients in a structured model. However, after participation in activities, caregivers were able to choose and decide with independence under limited external influences.[29] Autonomy was one of the main factors of psychological well-being[19] included in each activity (activities 3,5,6,8,9) inserted to encourage autonomy in choosing and making decisions in various events on their own.

Factor 3: Need for competence was a person's confidence in the ability to act, indicating the presence of an intrinsic motive driving successful expression of behaviors.[21,29] Six activities were in this component. Activity 5 supported the person's ability to create an appropriate environment for that person's psychological conditions in order to facilitate psychological healing.[19] Activity 7 focused on positive self-acceptance of personal advantages and disadvantages in various views and views of existing personal ability and capacity.[31] Promotion of need for competence was also included in activity of 3, 6, 8 caused caregivers to change and have self-improvement in problem management skills, self-care, and care for patients with coverage of the physical and psychological areas consistent with previous studies.[4,9,32] Furthermore, activity 9 was an activity in which caregivers for cancer patients set goals based on personal foundations to improve toward the goal and create empowerment.[15] Psychological well-being in the experimental group after the self-determination program was shown to have higher mean scores in every area of psychological well-being as shown in Table 1.

Furthermore, when differences in the mean scores for overall psychological well-being before and after program in the experimental group were compared with the control group were found to be different with statistical significance at .001. According to Dombestein et al,[23] there was a systematic review of the literature on caregiver motivation from the

Self-Determination Theory. It was found that fostering intrinsic motivation in caregivers led to greater inspiration and self-improvement in caring, more willingness to resolve problems, better coping with situations and better adaptability. It also reduces stress, anxiety and burden, has a positive impact on psychological well-being and subsequent life satisfaction. In addition, according to Badr et al,[26] motivation in cancer caregivers has been studied. It was found that the participants' depression and anxiety were significantly reduced. The relationship between patients and caregivers improved. It can increase the caregiver's psychological well-being as well as reduce the caregiver's burden.

Therefore, the findings were reflective of increases in the effectiveness of the self-determination program in strengthening psychological well-being among caregivers of cancer patients in every area. Having basic psychological needs met in three components caused caregivers to have intrinsic motivation resulting in improved interest, willingness to learn, sustainable health behavior adjustments, positive effects on psychological well-being and subsequent satisfaction in life.

Recommendations

1) The self-determination model can be used as an effective program in promoting psychological well-being among caregivers of cancer patients. Similar programs guided by the theory may be useful for caregivers of patients with other diseases.

2) Future studies should be carried out to monitor psychological well-being among caregivers of palliative cancer patients within the ranges of 3 months, 6 months and 1 year after the self-determination program to assess its long-term impact on psychological well-being.

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