



SIMULATED TEACHING IN THE LIFE EDUCATION INTERVENTION FOR PROMOTING NURSING STUDENTS' POSITIVE BELIEFS, WELL-BEING AND UNDERSTANDING OF A MEANINGFUL LIFE

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ABSTRACT

Background: A nursing educator had a responsible to equip nursing students with positive beliefs, well-being and understanding of a meaningful life, as well as the need to promote their physical, psychological, spiritual, and social health. The aim of this study was to understand simulated teaching in the life education intervention in relation to the above-mentioned goals.

Methods: This study adopted a pre-experimental design in one experimental group. A purposive sample was used in this study. All 60 participants were 3rd-year nursing students who followed the curriculum of health education. Ultimately, 51 nursing students voluntarily completed the pre-test, post-test, and post-post-test of questionnaires three times after finishing the simulated teaching in the life education intervention. A 56-item questionnaire was used to explore nursing students' perspective of a meaningful life (1-25 items), positive beliefs (1-11 items), and well-being (1-20 items). The content validity index (CVI) of the study questionnaire was 0.95, as established by seven expert scholars. The reliability of the three-part measurement (n=61) for pilot-test were as follows: meaningful life had a Cronbach's α of 0.96; positive beliefs had a Cronbach's α of 0.93; and well-being had a Cronbach's α of 0.95. Frequencies, percentages, pre-test mean and SD, post-test mean and SD, post-post-test mean and SD, paired T-test, and P-values were all used for the data analysis.

Results: Regarding then cognition of the meaning of life, nursing students had a mean score on the pre-test of 3.97 (SD 0.65), a post-test mean score of 4.18 (SD 0.62) ($P < 0.05$), and a post-post-test mean score of 4.11 (SD 0.66). Regarding positive beliefs, nursing students had a mean score on the pre-test of 3.93 (SD 0.70), a post-test mean score of 4.17 (SD 0.68) ($P < 0.01$), and a post-post-test mean score of 4.05 (SD 0.68). Regarding well-being, nursing students had a mean score on the pre-test of 4.00 (SD 0.64), a post-test mean score of 4.17 (SD 0.56), and a post-post-test mean score of 4.08 (SD 0.65).

Conclusions: Nursing students showed significant improvement on the immediate effect on meaning of life, positive beliefs, and no well-being; on the other hand, the nursing students showed no significant improvement on the delay effect on the meaning of life, positive beliefs, and well-being.

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INTRODUCTION

Understanding the meaning of life, positive beliefs, and well-being signify positive concepts for many people all over the world [19]. Paying attention to the meaning of life and healthy experiences may reduce many physical, psychological, spiritual, and social health problems [22]. Many factors contribute to understanding the meaning of life, including happiness, contentment, and responsibility [2]. Many people believe and regard the meaning of life as satisfying goals or purposes in their daily life.

People also use their relationships with others, personal growth, religion, and spirituality to enhance their understanding of the meaning of life and well-being [11].

Joy, hope, a meaningful life and self-transcendence may predict life satisfaction and well-being in seeking to improve quality of life [1]. Subjective well-being is a health promoter to enhance the meaningful life and maintain the quality of life [23]. Increased attention to a meaningful life may be used to treat poor psychological health and risky behavior in adolescents. An improved understanding of the meaning of life can also be used to address binge drinking, unsafe sex, a lack of exercise, a poor diet, and health education for many students in daily life [2].

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Possessing positive beliefs is important for nursing students to solve many problems in their daily lives. Nursing educators should direct nursing students in their physical, psychological, spiritual, and social health education. Education can be used as an intervention to strengthen nursing students' attitudes and positive beliefs [27]. Nursing educators in the classroom need to teach nursing students positive beliefs and positive behaviors that lead to positive lives. Positive beliefs may create a positive, healthy workplace as they are related to joy and a meaningful life. Achieving joy and meaningful life in the workplace allows healthcare workers to improve their professional care and provide people with quality care [18]. The positive psychology is based on positive beliefs and positive changes that may increase self-help and helping others [20]. Encouraging positive beliefs for people may reduce the functional symptoms of mental problems. Therefore, people may acquire positive beliefs that are related to creativity, cognition, and growth in daily life [5].

Well-being includes leading a pleasant life, having positive emotions, engaging in life, and leading a meaningful life [6], which mediates subjective well-being and is related to physical health, social support, and optimism [24]. Having a meaningful life promotes physical, psychological, spiritual, and social health and well-being. Well-being plays an important role in improving emotional and physical problems. Many studies show that mindfulness is effective at addressing psychological problems and promoting well-being. Mindfulness is a significant predictor of well-being [13]. Creativity and diversity may increase well-being in daily life [7]. Physical and psychological well-being can increase well-being and improve the quality of life [14].

Holistic health combines physical health and psychological well-being, and promotes the emotional development of many students with well-being [16]. Many students obtain positive well-being in classrooms, on campuses, and in many communities [10]. Moreover, subjective well-being is related to life and job satisfaction, happiness, and positive effects. Positive well-being stems from the positive aspects of well-being; negative well-being stems from the negative aspects of well-being [4]. Additionally, having a meaningful life is associated with individual predictors of life satisfaction and the promotion of well-being. The present study provides supporting information regarding a meaningful life following negative life events; this can promote well-being and help people adjust and solve problems [19].

A meaningful life, positive beliefs, and well-being are the most elements for promoting nursing students' physical, psychological, spiritual, and social health. Many nursing students suffer from physical, psychological, spiritual, and social health problems in their daily lives; it causes nursing students to lose a meaningful life, positive beliefs, and well-being. A nursing educator should have the responsibility to facilitate simulated teaching in the life education intervention to equip nursing students with understanding of a meaningful life, positive beliefs, and well-being, and to promote their physical, psychological, spiritual, and social health. Therefore, a nursing educator has to understand simulated teaching in the life education intervention for promoting nursing students' understanding of the meaning of life, positive beliefs, and well-being in daily life.

Aim

The aim of this study was to understand the learning effects of simulated teaching in the life education intervention for promoting nursing students' understanding of the meaning of life, positive beliefs, and well-being.

Methods

Design

This study adopted a pre-experimental design in one experimental group for the pre-test, post-test, and post-post-test.

Participants

A purposive sample was used in this study. All 60 participants were 3rd-year nursing students who followed the curriculum of health education. Ultimately, 51 nursing students voluntarily completed the pre-test, post-test, and post-post-test of questionnaires three times after the simulated teaching in the life education intervention.

Framework

The nursing students' backgrounds included gender, age, religious beliefs, conscious health status, family background, and family income. Nursing students went through simulated teaching in the life education intervention for promoting health based on their understanding of the meaning of life, positive beliefs, and well-being (Figure 1).

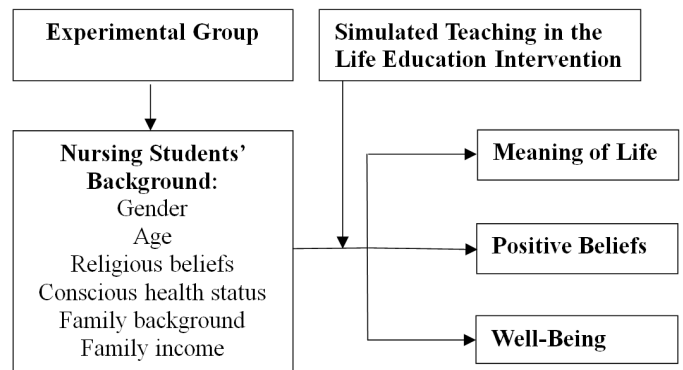


Figure 1 Framework of this Study

Simulated teaching in the life education intervention

Simulation is an effective method of learning to enhance the quality of teaching [28]. Simulated teaching as a teaching strategy contributes to nursing students' learning process in many courses [25]. In this article, simulated teaching is used in a nursing theory course to increase nursing students' self-efficacy for nursing practice. Nursing students attended an intervention group and were exposed to a mix of lectures and simulation. Nursing students expressed their self-efficacy, satisfaction, and the effectiveness of teaching and learning strategies [26]. Simulated teaching also may increase nursing practitioners' clinical competence and confidence, while decreasing their stress [3]. The nursing literature supports the need for end-of-life education; clinical simulation allows a nursing educator to provide the same quality end-of-life education and experience to all nursing students [15]. Moreover, medical students learn an important skill, placing an intravenous catheter, from a nursing educator through simulated teaching [9]. In these research articles, it will be shown that simulated teaching is an effective means of

teaching and providing learning strategies for nursing educators to teach many courses in nursing education to all nursing students.

In this research, a nursing educator designed the simulated teaching in the life education intervention on three PowerPoint topics: meaning of life, positive beliefs, and well-being that were linked to YouTube, e-books, and internet movies material. The nursing educator designed a life education intervention and made several learning objectives as follows: 1. Understand life's beauty, happiness, and gratitude; 2. Learn how to respect, care, value, and embrace life; 3. Understand how to love, be optimistic, be transcendent, and have positive beliefs; 4. Learn the fullness of joy, meaning, values, and life attitudes; 5. Understand how to demand satisfaction, enjoyment, life contentment, and self-actualization; 6. Learn how to have life satisfaction, how to live well, and how to have happiness in life; 7. Know how to solve problems during life's difficulties, frustrations, stress, and helplessness and evaluate the meaning of life, positive beliefs, and well-being.

Nursing students were able to learn three topic contents about the meaning of life, positive beliefs, and well-being from many people's life experiences and difficulties, such as Nick Vujicic, Lena Maria Klingvall, Abraham Lincoln, and the life stories of other people in Taiwanese society. Additionally, nursing students were able to learn more about the meaning of life, positive beliefs, and well-being from several films, including: "Water Knows the Answers", "One Liter of Tears", "Grave of the Fireflies", "Gabai Granny", "The Way Home", "Taare Zameen Par", "I Am David", "The Secret", and "What Dreams May Come". In addition, nursing students were able to learn more about the meaning of life, positive beliefs, and well-being from many books, including "I Still Have One Leg", "Life without Limits: Inspiration for a Ridiculously Good Life", and other e-books.

In the simulated teaching program continuing to three weeks, a nursing educator gave a two-hour lecture to equip nursing students with knowledge on physical, psychological, spiritual, and social health and increased nursing students' health education on the meaning of life, positive beliefs, and well-being. After a nursing educator provided nursing students with a PowerPoint presentation to learn about people with life's difficulties, frustrations, stress, and helplessness on YouTube or the internet, nursing students used the simulated learning and collaborative learning. Nursing students in each group selected a person and shared the contents of the group's discussion and the simulated learning experiences with everyone in the class. All the nursing students were able to learn from others' learning experiences. Finally, the nursing educator summarized the contents of the simulated teaching in the life education intervention on the meaning of life, positive beliefs, and well-being on the PowerPoint presentation and shared it with all nursing students. It was anticipated that the nursing students would be able to obtain their learning objectives on the meaning of life, positive beliefs, and well-being. After the nursing educator taught simulated teaching in life education intervention and put all the PowerPoint presentation information on the e-learning platform, nursing students could download and learn from the simulated teaching material on life education intervention in the future.

Ethical considerations

This study of simulated teaching in the life education intervention was approved by the department of nursing, Fooyin University, Taiwan. Nursing students voluntarily participated in the curriculum of health education. In addition, nursing students were recruited and they provided their informed consent and signature to the researcher. All participants voluntarily completed the pre-test, post-test, and post-post-test questionnaires three times after the simulated teaching in the life education intervention.

Instruments

The study instruments were the Life Attitude Profile by Ying-Chi Ho [12] and the Positive Coping, Spirituality and Well-Being Scale by Wei-Ting Lin & Min-Ning Yu [17]. A 56-item questionnaire was used to explore nursing students' views on the meaning of life (1-25 items), positive beliefs (1-11 items), and well-being (1-20 items). The questionnaire included many factors, such as the nursing students' academy, department, subject, school system, class, student ID, gender, age, religious beliefs, conscious health status, family background, family income, meaning of life perspective (1-25 items), positive beliefs (1-11 items), and well-being (1-20 items). A five-point Likert scale ranging from completely disagree (1) to completely agree (5) was used for this study. The content validity index (CVI) of the study questionnaire was 0.95, as established by seven expert scholars. The reliability of the three-part measurement ($n=61$) for pilot-test were as follows: meaning of life (1-25 items) had a Cronbach's α of 0.96; positive beliefs (1-11 items) had a Cronbach's α of 0.93; and well-being (1-20 items) had a Cronbach's α of 0.95.

Data collection

The researcher administered the pre-test, post-test, and post-post-test questionnaires three times to nursing students, and explained that these questionnaires were to understand nursing students' understanding of the meaning of life, positive beliefs, and well-being after simulated teaching in the life education intervention. The nursing students could decide to completely or incompletely fill out the pre-test, post-test, and post-post-test questionnaires. The nursing students self-responded to the 56 questions regarding the meaning of life (1-25 items), positive beliefs (1-11 items), and well-being (1-20 items). Finally, 85.00% of questionnaires were finished and the loss of questionnaires totaled 15.00%. The researcher collected all completed 51 pre-test, post-test, and post-post-test questionnaires from April 24, 2017, to June 15, 2017.

Data analysis

The statistical package SPSS 22.0 was used to analyze all data in the study. Frequencies, percentages, pre-test mean and SD, post-test mean and SD, post-post-test mean and SD, paired T-test, and P-values were used for the data analysis.

RESULTS

The study participants consisted of 51 nursing students. The results of the study reported the nursing students' background: the gender distribution, age distribution, religious beliefs, conscious health status, family reared, and family income. In gender distribution, nursing students comprised 4 (7.80%) males and 47 (92.20%) females (Table 1). In terms of age distribution, nursing students included 18 (35.30%) 17-

year-olds and 33 (64.60%) 18-year-olds (Table 1). In religious beliefs distribution, nursing students included 23 (45.10%) no religious beliefs, 5 (9.80%) Christians, 8 (15.70%) Buddhists, and 15 (29.40%) Taoists (Table 1). In conscious health status, nursing students included 1 (2.00%) very bad health status, 3 (5.90%) not-good health status, 13 (25.50%) ordinary health status, 27 (52.90%) good health status, and 7 (13.70%) very good health status (Table 1). In terms of family rearing distribution, nursing students included 15 (29.40%) single-parent reared, 34 (66.60%) parental reared, 1 (2.00%) grandparent reared, and 1 (2.00%) other reared (Table 1). In family income distribution, nursing students included 5 (9.80%) low income families, 5 (9.80%) low-middle income families, 31 (60.80%) middle income families, 9 (17.60%) high-middle income families, and 1 (2.00%) high income family (Table 1).

Table 1 Nursing Students' Background

n=51	Variables	Frequency	Percentage
Gender	Male	4	7.80%
	Female	47	92.20%
Age	17 years	18	35.30%
	18 years	33	64.70%
Religious Beliefs	no religious beliefs	23	45.10%
	Christian	5	9.80%
	Buddhist	8	15.70%
	Taoist	15	29.40%
Conscious Health Status	very bad health status	1	2.00%
	not-good health status	3	5.90%
	ordinary health status	13	25.50%
	good health status	27	52.90%
	very good health status	7	13.70%
Family Reared	single-parent reared	15	29.40%
	parental reared	34	66.60%
	grandparent reared	1	2.00%
	other reared	1	2.00%
Family Income	low income families	5	9.80%
	low-middle income families	5	9.80%
	middle income families	31	60.80%
	high-middle income families	9	17.60%
	high income family	1	2.00%

The reliability of three measurement (n=51) including meaning of life, positive beliefs, and well-being was calculated in one experimental group. Regarding the meaning of life (1-25 items), the questions on the pre-test had a Cronbach's α of 0.98, on the post-test Cronbach's α was 0.98, and on the post-post-test Cronbach's α was 0.99 (Table 2). Regarding positive beliefs (1-11 items), the questions on the pre-test had a Cronbach's α of 0.97, on the post-test Cronbach's α was 0.97, and on the post-post-test Cronbach's α was 0.97 (Table 2). Regarding well-being (1-20 items), the questions on the pre-test had a Cronbach's α of 0.97, on the post-test of Cronbach's α was 0.96, and on the post-post-test Cronbach's α was 0.98 (Table 2).

Table 2 Reliability of Three-Part Measurement

n=51	Cronbach's α	Pre-test	Post-test	Post-post-test
Meaning of Life	0.98	0.98	0.98	0.99
Positive Beliefs	0.97	0.97	0.97	0.97
Well-being	0.97	0.96	0.96	0.98

Regarding the meaning of life, nursing students had a mean score on the pre-test of 3.97 (SD 0.65), a post-test mean score

of 4.18 (SD 0.62), and a post-post-test mean score of 4.11 (SD 0.66) (Table 3). Regarding positive beliefs, nursing students had a mean score on the pre-test of 3.93 (SD 0.70), a post-test mean score of 4.17 (SD 0.68), and a post-post-test mean score of 4.05 (SD 0.68) (Table 3). Regarding well-being, nursing students had a mean score on the pre-test of 4.00 (SD 0.64), a post-test mean score of 4.17 (SD 0.56), and a post-post-test mean score of 4.08 (SD 0.65) (Table 3).

Table 3 The Pre-test, Post-test, and Post-post-test Mean Scores on Meaning of life, Positive Beliefs, and Well-being

n=51 one experimental group	Pre-test		Post-test		Post-post-test	
	Mean	SD	Mean	SD	Mean	SD
Meaning of Life	3.97	0.65	4.18	0.62	4.11	0.66
Positive Beliefs	3.93	0.70	4.17	0.68	4.05	0.68
Well-being	4.00	0.64	4.17	0.56	4.08	0.65

Using the Paired-T test analysis, nursing students (n=51) showed a significant improvement in the simulated teaching effects of the life education intervention on their meaning of life, positive beliefs, and well-being (Table 4). Regarding the meaning of life, nursing students had a mean score on the pre-test of 3.97 (SD 0.65), and a post-test mean score of 4.18 (SD 0.62) ($P < 0.05$) (Table 4). Regarding positive beliefs, nursing students had a mean score on the pre-test of 3.93 (SD 0.70), and a post-test mean score of 4.17 (SD 0.68) ($P < 0.01$) (Table 4). Regarding well-being, nursing students had a mean score on the pre-test of 4.00 (SD 0.64), and a post-test mean score of 4.17 (SD 0.56) (Table 4).

Table 4 Paired-T Test Analysis: Comparisons among Pre-test and Post-test on Meaning of Life, Positive Beliefs, and Well-being

n=51 one experimental group	Pre-test		Post-test		Paired-T	P Values
	Mean	SD	Mean	SD		
Meaning of Life	3.97	0.65	4.18	0.62	-2.49	0.016*
Positive Beliefs	3.93	0.70	4.17	0.68	-2.83	0.007**
Well-being	4.00	0.64	4.17	0.56	-2.01	0.050

* $P < 0.05$ ** $P < 0.01$ *** $P < 0.001$

Using the Paired-T test analysis, nursing students (n=51) showed significant improvement in the simulated teaching effects of the life education intervention on meaning of life, positive beliefs, and well-being (Table 5). Regarding the meaning of life, nursing students had a mean score on the pre-test of 3.97 (SD 0.65), and a post-test mean score of 4.11 (SD 0.66) (Table 5). Regarding positive beliefs, nursing students had a mean score on the pre-test of 3.93 (SD 0.70), and a post-test mean score of 4.05 (SD 0.68) (Table 5). Regarding well-being, nursing students had a mean score on the pre-test of 4.00 (SD 0.64), and a post-test mean score of 4.08 (SD 0.65) (Table 5).

Table 5 Paired-T Test Analysis: Comparisons among Pre-test and Post-post-test on Meaning of Life, Positive Beliefs, and Well-being

n=51 one experimental group	Pre-test		Post-post-test		Paired-T	P Values
	Mean	SD	Mean	SD		
Meaning of Life	3.97	0.65	4.11	0.66	-1.44	0.157
Positive Beliefs	3.93	0.70	4.05	0.68	-1.16	0.253
Well-being	4.00	0.64	4.08	0.65	-0.77	0.446

* $P < 0.05$ ** $P < 0.01$ *** $P < 0.001$

DISCUSSION

Psychological adjustment is related to coping with health problems, self-esteem, and one's meaning of life, while self-management is related to well-being [21]. Life satisfaction is an important component of subjective well-being that is a term of happiness, and subjective well-being is the balance between positive and negative emotions [30]. Low subjective well-being is a significant prediction of increased health problems [8]. On the other hand, psychological health and coping strategies aim to improve life satisfaction through quality of life [22].

The brief summary of this study showed no differences to the results of other studies. This study indicated positive correlations among meaning of life, positive beliefs, and well-being. After simulated teaching in the life education intervention, the results indicated that nursing students exhibited significant improvement on the immediate effect (pre-test and post-test) regarding the meaning of life and positive beliefs, but no significant improvement on well-being. In addition, the results also indicated that nursing students had no significant improvement on the delay effect regarding the meaning of life, positive beliefs, and well-being.

Many students experience positive well-being in their classrooms, campus and community, and they learn from positive beliefs and worldviews to increase their well-being in daily life [10]. Understanding well-being is related to life satisfaction, happiness, and positive effects. Positive well-being involves the positive aspects of well-being, while negative well-being involves the negative aspects of well-being [4]. Meaning of life is also related to individual predictors of life satisfaction that promote psychological well-being in further development and implementation [29].

In meaning of life, nursing students had 3.97 mean scores on pre-test, 4.18 mean scores on post-test ($P < 0.05$), and 4.11 mean scores on post-post-test. In positive beliefs, nursing students had 3.93 mean scores on pre-test, 4.17 mean scores on post-test ($P < 0.01$), and 4.05 mean scores on post-post-test. In well-being, nursing students had 4.00 mean scores on pre-test, 4.17 mean scores on post-test, and 4.08 mean scores on post-post-test. From the results of this study, nursing students showed significant improvement in relation to the meaning of life and positive beliefs on the mean scores of post-test, but no significant improvement in well-being on the mean scores of post-test. In addition, all nursing students had no significant improvement in the meaning of life, positive beliefs, and well-being on the mean scores of the post-post-test. Therefore, we know that nursing students were promoted concerning the relationships between the pre-test and post-test in relation to the meaning of life and positive beliefs after simulated teaching in the life education intervention; nursing educators should promote nursing students' well-being in the learning process of life education intervention in future simulated teaching.

Moreover, nursing educators provided simulated teaching in the life education intervention for two-hour lectures to nursing students every week (total six-hour lecture for three weeks). Nursing students had an immediate effect (post-test) on the meaning of life, positive beliefs, but not on well-being, and had no delay effect (post-post-test) on the meaning of life, positive beliefs, and well-being. Therefore, the simulated teaching in the life education intervention needs nursing educators to

continue teaching nursing students for a long time in order to promote their meaning of life understanding, positive beliefs, and well-being.

Meaning of life, positive beliefs, and well-being are the most important factors for nursing students who receive physical, psychological, spiritual, and social health education. Therefore, nursing educators should equip nursing students in the learning process of nursing education with deeper meaning of life, positive beliefs, and well-being to promote their physical, psychological, spiritual, social health education. In future studies, we will continue to understand nursing students' perceptions of the meaning of life, positive beliefs, and well-being.

Limitations

The limitations of this study included a small sample that was limited to 51 nursing students in a five-year nursing program. All participants were in their 3rd year of a program that included a curriculum on health education, which may have led to limited data collection. In addition, participants were limited to nursing students in the department of nursing at a university in Kaohsiung City, Taiwan.

CONCLUSIONS

Nursing students showed significant improvements on the immediate effects in the simulated teaching of life education intervention on their meaning of life, positive beliefs, and no well-being. In addition, nursing students showed no significant improvements on the delay effect in the simulated teaching of the life education intervention on their meaning of life, positive beliefs, and well-being. Therefore, nursing educators should enhance nursing students' understanding of the meaning of life, instill positive beliefs, and strengthen well-being to promote physical, psychological, spiritual, and social health education in the future.

Recommendation

It is suggested that future studies include two groups: experimental and control. Additionally, it is recommended that different school systems be taught simulated teaching in life education intervention to collect large amounts of data and understand nursing students' perception of the meaning of life, positive beliefs, and well-being to equip them with physical, psychological, spiritual, and social health education.

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