

## Original Article

# Interventions to Increase Hope in Adult Patients with Cancer: *Scoping Review*

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### Abstract

**Background:** Cancer can cause sufferers to lose hope. Interventions to increase hope in cancer patients require interaction and system support so that they can provide enthusiasm and acceptance of the disease.

**Purpose:** This review aims to identify interventions that can raise expectations in adult cancer patients.

**Method:** Review this uses the method scoping reviews according to Arskey and O'Malley, namely: (1) Identification of research questions, (2) identifying relevant research, (3) study selection, (4) mapping data, (5) compiling, summarizing and reporting results. The search was carried out at PubMed, CINAHL, Psyc Info.

**Inclusion Criteria:** English language articles, published in the last 10 years, do not limit the place or location.

**Exclusion Criteria:** Articles discussing pediatric patients with cancer, adolescent patients with cancer, qualitative research methods.

**Search strategy** using keywords with Medical Subject Heading / MeSH: cancer, oncology, hope, psychotherapy or counseling, intervention or effectiveness.

**Result:** There are five articles reviewed in this scoping review. The research was conducted: China (n = 1), Canada (n = 1), Iran (n = 3). Interventions that can increase hope in adult cancer patients: Workshop, interventions group logo therapy, interventions supportive- expressive discussion groups, we chat-based life review programs (WBLRP), interventions spiritual group therapy. Cancer is being able to think in a positive direction, being grateful, being motivated, having self-confidence and increasing Hope. An intervention that is easy to apply is the Workshop Intervention, because participants are only asked to draw and paste from easily available materials such as used paper, used cloth and after being arranged into a shape, participants are asked to tell about the results that have been made.

**Conclusion:** Hope is an important aspect in the patient's disease trajectory, especially in relation to the healing process. This study will enable nurses to gain an in-depth understanding of interventions to increase expectations so as to maintain and increase patient expectations.

### Keywords

hope, optimism, intervension, psychotherapy, cancer

## INTRODUCTION

Cancer continues to increase every year based on data from the World Health Organization (1), the number of cancer cases reached 18.1 million and will continue to increase, it is estimated that 29.4 million people in 2040 (1). Based on data obtained through the 2020 WHO data on cancer, cancer patients have several responses, namely: physically when they feel pain (2), psychologically when they start to tire in order to survive (3), and religiously when they think towards death (4). In addition, cancer patients often experience hopelessness and apathy because of their illness (5). In order to go through this effect, the patient needs to have hope.

Hope is a basic human nature regardless of age group and culture (Baczewska et al., 2019). In patients with cancer the hope is that there is confidence in the success of the treatment (6). In advanced cancer, patients find it difficult to express a desired hope because they are more closed off (7). Patient expectations can be increased through interaction, prayer support, attention from family and friends (8) as well as medical personnel (9). Interaction needs to be done by showing affection so that it can build positive thoughts and provide a sense of comfort (10). In addition, interventions need to be carried out to increase expectations in patients with cancer because patients can be more enthusiastic about life and accept the condition of their disease. Some interventions to increase hope in cancer patients include: acceptance and commitment therapy (ACT), map-based life review program (MBLRP) and dying well education program on korea. ACT is a psychological therapy where patients can adapt to their disease conditions (11). MBLRP is a program specifically for cancer patients undergoing chemotherapy (Chen, Xiao, Zheng, Zhang, & Lin, 2020). The Intervention dying well education program on korea is a program that prepares patients and their families so they are not afraid and anxious when facing death (12).

The literature search that was conducted has not found any reviews that map what interventions have been done to increase hope in patients with cancer. (13). Based on the explanation above, the writer wants to review the scoping review. This review identifies the types of interventions that can raise hope in adult cancer patients. In this review, we focus more on interventions that can raise hope and focus on adult patients with cancer.

## METHODS

Review This is a scoping review using the steps of Arskey and O'Malley (2005): (1) identifying research questions; (2) identifying relevant studies; (3) study selection; (4) mapping data; (5) compiling, summarizing and reporting results.

Inclusion criteria Journal articles in this scoping review in English, published in the last 10 years, do not limit the place or location.

Exclusion Criteria: Articles discussing pediatric patients with cancer, adolescent patients with cancer, qualitative research methods.

Stage 1: Identifying research questions



1. What interventions can increase hope inpatients adult cancer?
2. What are the expectations of previous researchers that can be used in interventions to increase hope in patients with adult cancer?
3. What are the results and who are the targeted participants in an intervention that can increase hope in patients with adult cancer?
4. What elements and targeted outcomes are in line with expectancy theory in adult cancer patients?

#### Stage 2. Identifying relevant studies

The literature sources used are from three international databases, namely: PubMed, CINAHL, PSYCINFO.

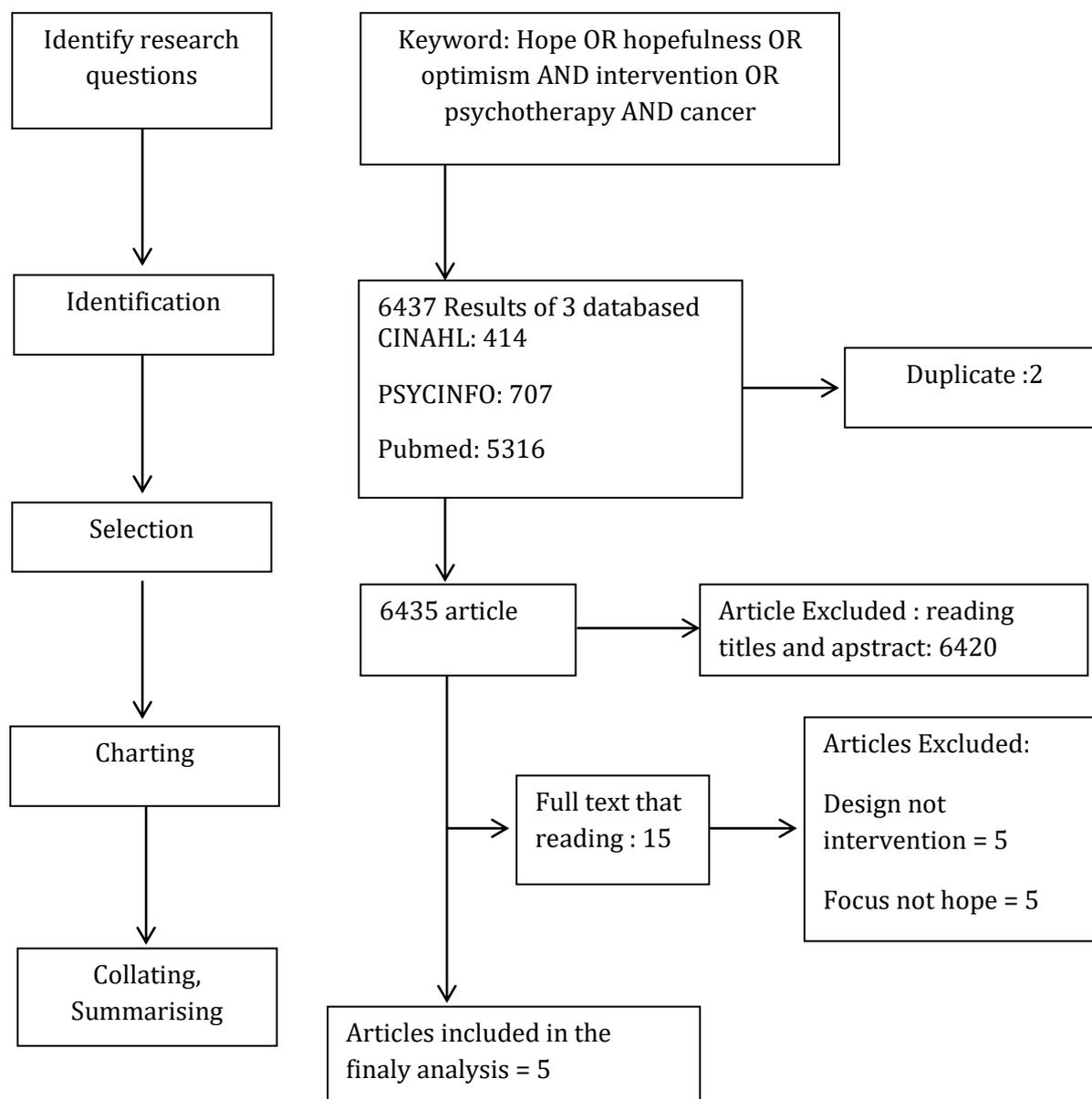
The search strategy uses keywords with Medical Subject Heading (MeSH): hope OR hopefulness OR optimism AND intervention OR psychotherapy AND cancer. Published in the last 10 years.

#### Stage 3. Study selection

The search for articles in the review was carried out in three databases (PubMed, CINAHL, Psych Info), 2010 – 2020 with a result of 6,437 articles.

The articles found read the title and abstract, the remaining 57 articles: (there were 2 duplicates and deleted, design is not intervention 28, focus is not hope 10). Articles read full text 17 (design is not intervention 7, focus is not hope) 5. So the number of articles extracted is 5 articles for a more complete explanation on the PRISMA diagram (figure .1) The review of article quality for this scoping review does not go through a critical assessment according to Arskey and O'Malley (2005), by:

(1) Article search is carried out by using keywords, then reading the title, then the abstract that matches the inclusion and exclusion criteria, after which it is saved into the application. EndNote X9. (2) The article storage is adjusted to the search results for example from pubmed, the name is pubmed article hope, CINAHL article hope, psych article info hope. After that the three folders are put together, if there is the same title then the article is deleted. The reviewers who read the full articles were selected according to the study, journals whose text was complete but did not meet the inclusion criteria were recorded and reported in this study. The results of all searches will be reported using the PRISMA (preferred reporting items for systematic reviews and meta-analyses) steps, (Page J Matthew, 2020; Peters, Godfrey, McInerney, Parker, & Baldini Soares, 2017). The search for articles on the review was carried out three databases, namely (PubMed, CINAHL, Psych Info), 2010 - 2020 boundaries with the result of 6,437 articles. All titles and abstracts were read from the articles obtained then 6,380 articles were excluded because, not according to the inclusion criteria, only 57 articles were found. The articles found were read the title and abstract, the remaining 57 articles were: (2 duplicates were found and deleted, design was not intervention 28, focus was not hope 10). Articles that are read in full text 17 (design is not intervention 7, focus is not hope 5). So the number of articles extracted is 5 articles for a more complete explanation on the PRISMA diagram (Figure 1).



**Figure 1.**  
**PRISMA (Preferred Reporting Items for Systematic Reviews and Meta Analyses)**

## RESULTS

### Stage 4: Mapping data

Articles that have been selected by the first reviewer DWA and the second reviewer ER, for a total of 5 articles. After that, the first reviewer read in full and analyzed the article

and adjusted it to the data extraction table, including: data extraction was carried out on: article title, author, and year of publication, research objectives, design, participants, interventions, measures, results, theory of hope. (Table 1)

Stage 5: compiling, summarizing and reporting results

From the extracted articles, it was found that there are 5 articles about interventions that can increase hope in adult patients with cancer. Research articles that have been deemed worthy after a quality assessment process has been carried out according to the objectives, MESH keywords and inclusion criteria.

## RESEARCH RESULTS

Of the five articles included in the review using a design randomized control trial, quasi experimental controlled non - concurrent. The research was conducted: China (n = 1), Canada (n = 1), Iran (n = 3). The total number of respondents was 292, with the age of the respondents in the five articles reviewed ranging from 20 to 80 years. The age limit of the article varies greatly between adults and seniors, some are: 31 - 60 years (14) , 40 - 80 years (15), 41 - 50 years (16), less than 50 years (17).

Based on the articles obtained, it fits perfectly with the inclusion criteria of this review. The gender obtained in this review varies, with only female participants (17), there is a mixture (men and women) totaling 4 articles (14,15,18). The types of cancer found in the article vary widely, including: There is 1 article that tells about breast cancer, 1 article about cancer with lymphedema, 1 article on blood cancer, 1 article about colon cancer, 1 article about cancer in general. The characteristics of cancer patients vary, there are 2 articles which are stage 1 - 3, there are 1 article that are stage I - II, there are 1 article that are stage III to IV. Samples were taken from clinics and hospitals. Two articles describe samples taken at the Clinic and 3 articles taken at the hospital.

The interventions obtained from the five articles were: workshop intervention, logo therapy group intervention, supportive-expressive discussion groups intervention, we chat-based life review program (WBLRP), spiritual group therapy intervention. Participants who took part in the workshop intervention at the initial stage were 19 (16 women, 3 men) but 16 people were able to finish pasting pictures and presentations. There were 11 participants who continued to explain the pictures attached, after which participants were invited to respond to the results of the intervention presentation which was given only 9 people. This article has not fully explained why the participants who were originally 19 became only 9. These interventions are like; pasting, drawing and telling stories about the results of attachments and pictures that are pasted (18).

Participants in the initial logo therapy group intervention were recruited 80 people and according to the inclusion criteria 20 people, then participants who were selected by purposive sampling method were divided into 2 groups (control 10 people and intervention 10 people). The mean point value of the intervention group's expectation at pre-test was 22.20, post-test was 49.80 and after 1 month of follow-up was 47.90. Interventions that can increase expectations in patients with cancer from the

article found that group logo interventions contain group discussions and take action according to the guidelines given (15). The intervention supportive-expressive discussion groups, the total sample of 81 people was divided into 2 groups (41 intervention and 40 controls). The results of the mean value in the intervention group pre-test group 16.64, post-test 23.92, follow-up 8 weeks 24.24. The expressive supportive discussion intervention provides material about (psychological information such as stress due to cancer, fear of relapse, explaining stress management, coping strategies for cancer, managing physical and mental activity, setting goals, being positive and having plans for the future and medical information about cancer), elements about cognitive, emotional and social (17).

The we chat intervention - based life review program (WBLRP), a sample of 86 people, was divided into 2 groups (experiment 44 and control 42). This intervention is very effective in improving the psychology and spirituality of cancer patients in the community. Psychological therapy about we chat - based life review program (WBLRP) uses cognitive theory (Zhang et al., 2019). Spiritual healing is given to patients with cancer by praying and reading the holy books of each religion (Tabrizi et al., 2016). intervention Group therapy spiritual about psychological and spiritual. Value Mean hope for pre - test 23.21, post - test 28.75. 80 samples were divided into 2 groups. Spiritual healing has three dimensions including: a cognitive dimension where individuals are directed to find a purpose in life, and believe in their opinions (16).

Table 1. Data extraction

No	Author and Years	Purpose	Design	Participants	intervention	Measurement	Result	Hope Theory
1	Thomas et al, 2016	To test a hopeful intervention in men and women with cancer who have upper or lower limb lymphedema	research Mixed methods with an interpretive descriptive approach	Number of samples: (n = 19) there were 16 women and 3 men, patients with upper or lower leg lymphedema who had been sick for 1–21 years. Experiencing breast, prostate, and colorectal cancer. Place in a downtown in Ontario, Canada (clinical psychology). The group divided into 2 in the spring and in the fall, 2013.	Intervention in the form of workshops. Schedule to two separate groups, within 4 weeks. Frequency 2 times, session 1 pasting pictures and telling stories, session 2 analyze pictures and presentation of results. value contained in the psychological aspect, namely psychosocial, where patients can socialize and express their opinions and tell stories about experiences felt during illness and raise hope.	The data was obtained by means of interviewing respondents and recording them, as well as photos that were attached. All transcripts and photos were analyze using NVivo 10.	Workshop interventions in the form of taped images and stories from images, support the expression of negative experiences of patients, thereby increasing expectations as a visual active process in which they can be directly involved	The theory of Hope from Eliot and Olver: That in order to bring up a patient's expectation, it is necessary to have social involvement and concentration in a positive direction. This enables individuals to improve their quality of life, with chronic or life-threatening conditions
2	Ebrahimi et al,	To know the group logo	Quantitative researchby	Number of samples: (n = 20), leukemia	Intervention Logo therapy group.	Snyder Scale Hope	Thepoint value of mean the	The theory of hope from

No	Author and Years	Purpose	Design	Participants	intervention	Measurement	Result	Hope Theory
	2014	therapy in improving the leukemia patient expectations	sampling (purposive sampling method and randomly divided)	patients aged 31-60 years. Golestan Hospital location patients were treated in 2012. The group was divided into 2, namely the control group 10 men and the intervention group 10 women.	The intervention group received group logo therapy for 10 sessions for 45 minutes. The meeting was held 2 times, session 1 was giving therapy and session 2 assessed the results after 1 month of intervention. Pretest and post-test were given for both groups, but the control group did not receive group logo therapy. Value the psychological aspect of psychosocial which teaches patients to discuss actively and stimulate positive ways of thinking		intervention group's expectation at pre-test was 22.20, post-test was 49.80 and after 1 month of follow-up was 47.90. The results showed that group logo therapy was effective in increasing hope in leukemia patients, and further evaluation action showed that group logo therapy was very effective in increasing expectation. Participants have the thought that death is not the end of everything but	Synder et al: That the meaning of life will reach a broader structure than hope, and hope is considered a meaningful element of life, so that hope can be a prediction of body and mental health in other words hope and the meaning of life cannot be separated.

No	Author and Years	Purpose	Design	Participants	intervention	Measurement	Result	Hope Theory
							means the meaning of life by giving thanks to God for all the blessings that are obtained free of charge, for example sunrises and sunsets, mountains and seas, flowers and trees	
3	Tabrizi et al, 2016	To evaluate the effect of expressive supportive discussion groups on loneliness, hope and quality of life in breast cancer sufferers.	Quantitative research, randomized control trial	Number of samples (n = 81), groups divided into 2, intervention (n = 41) and control (n = 40). Outpatients with breast cancer stage I - III, have undergone surgery for 4 - 18 months and have undergone chemotherapy. Age <50 years. Place at the Hospital Omid Cancer Center	Intervention of supportive-expressive discussion groups. The first intervention group was given the opportunity to express their perceived fears. The materials provided were in the form of psychological information such as stress due to cancer, fear of	Hope was assessed with the State Hope Scale (SHS), an instrument that measures expectations as a cross-situational, long-term trait in the general population, - 12 items, the 2 subscale measures confidence in a person's capacity to	The results of the value mean in the intervention group pre - test 16.64, post-test 23.92, follow-up 8 weeks 24.24. Results for the intervention group increased from pre-test to post-test to follow-up 8 weeks of.	This study does not use the theory hope specifically, it only uses a questionnaire (State Hope Scale (SHS) from Snyder as an instrument.

No	Author and Years	Purpose	Design	Participants	intervention	Measurement	Result	Hope Theory
				<p>affiliated to Urmia University of Medical Sciences is located in the North West of Iran. Recruited in 1 Year from 2013 - 2014.</p>	<p>relapse, explaining stress management, coping strategies for cancer, managing physical and mental activity, setting goals, being positive and having plans for the future and medical information about cancer. The control group only received routine care as well as a brochure about self-care during chemo therapy. The intervention consisted of 12 weekly 90-minute sessions, and 8 weeks of follow-up. Value the psychological aspect which teaches education</p>	<p>initiate, maintain (agency), and ability to generate a path to reach the goal (path). SHS, 12 Number response scale 1,2,3,4. These two things are addictive and positively related to each other, but not the same, why because everyone may act without knowing how to achieve the goal and vice versa.</p>	<p>Through emotional and future images that are expressed can provide objective experience and increase hope and quality of life.</p>	

No	Author and Years	Purpose	Design	Participants	intervention	Measurement	Result	Hope Theory
					to patients about social life. The value of the religious aspect of how to pray, read the holy book (all religions)			
4	Zhang et al, 2019	To evaluate the feasibility and effects of the-based life review program We Chaton anxiety, depression, self-transcendence, meaning in life and hope among cancer patients.	Quantitative study, non-concurrent controlled quasi-experimental study	Number of samples (n = 86) of patients with stage III - IV cancer and already on chemotherapy. Ages 40 - 80 years, 63 males and 23 females. They are located in two oncology departments of a public hospital affiliated with a medical university in Fujian, southeast China. The group was divided into two, namely the control group 42 patients and the intervention group 44. The control group was recruited from April. July 2017 and	Intervention: life review program based on: TheWe Chat-based life review program (WBLRP) innovative intervention non-pharmacological that is effective in improving the psychospiritual well-being of cancer patients living in the community. The psychological value is that the intervention group receives WBLRP and routine care. WBLRP consists of 4 sections of interviews e-life	Hope is measured by the herth hope scale, a 12-item scale consisting of three dimensions: morality and the future, readiness and positive hope and relationship	The mean hope pre-test result is 35.86 post-test 36.36, the results obtained by this WBLRP intervention can increase expectations. Participants can find the meaning of life after the sad experiences they face, thus making them calmer. This intervention is very effective in improving the psychology and spirituality of cancer patients in the	This research does not use the hope theory specifically, but uses an instrument of the hunger herth scale.

No	Author and Years	Purpose	Design	Participants	intervention	Measurement	Result	Hope Theory
				experimental group from August 2017 - February 2018.	review life review and 4 modules, which have been published. The interviews covered the participants' entire lives, including current (cancer experience), adulthood, childhood and adolescence and a summary of their lives, assisted by media pictures, music, videos and audio picture books. Religious Values are contained in E-products legacy which contain spiritual guides and videos. The control group received only routine care, which included personal care, medical care,		community	



No	Author and Years	Purpose	Design	Participants	intervention	Measurement	Result	Hope Theory
					<p>health education and emotional support, all provided by the study hospital. Control group participants can use the Internet freely to search for information. However, they do not have access to WBLRP. WBLRP was conducted for 6 weeks by the first author, who acted as the facilitator. The duration of 50 hours of training per interview ranges from 40 - 60 minutes, depending on the patient's physical condition and willingness to speak. The frequency of 2 times, before the procedure, 6 weeks after the</p>			

No	Author and Years	Purpose	Design	Participants	intervention	Measurement	Result	Hope Theory
					procedure, the results were assessed.			
5	Hosseini Rafsanjani et al, 2017	to evaluate the effect of spiritual group therapy on the hope and mental and spiritual health of colorectal cancer patients	Quantitative research, quasi-experimental	Sample number (n = 80) of colorectal cancer patients. Age 41 - 50 years. Group: divided into 2 parts, namely intervention for 40 patients and control for 40 patients. The place is in Kerman, Iran, in (Shafa and Bahonar hospitals)2013.	Group intervention spiritual has 2 aspects of value, namely the psychological aspect and the spiritual aspect. The psychological aspect of the patient can socialize and interact with others. The spiritual aspect with an Islamic approach that focuses on topics such as meditation, prayer, repentance, altruism, patience and belief. Time 2013 in Kerman, Iran. Duration / Frequency 8 weeks, every 1	Snyder hope scale - 12 items. If you answer each question, point is correct (4) and wrong (1). Questions 3, 5, 7, 11 are unmarked and confusing. Questions 1,4,6,8 relate to sections of the crossover, questions 2, 9, 10, 12 relate to parts of the motivation scale. The hope score is the sum of the 2 scores for this portion of the scale. The refore a total could be between 8 - 32, a score of more than 24 is desirable, (Snyder).	value mean hope for pre-test 23.21, post-test 28.75. 80 samples were divided into 2 groups (intervention 40 and control 40). The results showed that this intervention was effective in increasing hope, mental health and spiritual health in patients with colorectal cancer	This research does not use the theory hope specifically, but uses the Synder hope scale.

No	Author and Years	Purpose	Design	Participants	intervention	Measurement	Result	Hope Theory
					session the duration is 90 minutes (given psychological and spiritual intervention). After an 8-week session, they were given 1 week to do an assessment of the expectation questionnaire. Both groups underwent a post-test.			

## DISCUSSION

Hope intervention in patients with cancer uses psychological therapy related to human attitudes and the elements contained therein, namely: cognitive is more towards perceptions and thoughts, affective releases perceived and conative emotions or changes in how to behave or act and can foster patient expectations. with cancer (19).

Psychological intervention with education is indispensable for patients with cancer, for example cancer gynecology education received material from (20). Regarding sexual function, quality of life, uncertainty, anxiety, depression, and social support, while research from Bredal et al (21) education for breast cancer patients consists of 4 materials, namely: (health education, stress management, increased problem solving skills and psychological support), while there is a difference in research on colorectal cancer that is given education and added by listening to relaxation music about colorectal cancer, listening to music and how to relax, operation information, the importance of physical activity (22).

Psychological intervention with education can increase expectations in patients with cancer and the material provided is related to cognitive, psychological, emotional and social support elements. (17). Psychotherapy interventions with workshops have cognitive, behaviour, and emotional elements that can be released, so these interventions can raise expectations in patients with cancer. (18). Some researchers say the influence of hope for patients with cancer because of the social support provided (23). Some researchers also say less depression, fear of sadness about the disease they are experiencing (24,25).

Group logo psychotherapy intervention about group discussions and following the instructions / guidelines given can increase expectations in patients with cancer (15). The expressive supportive discussion intervention received materials such as (psychoeducation: pressure on cancer, anxiety about relapse, how to deal with stress, physical activity, making goals, thinking positively and planning the future as well as getting health information about cancer) (17). Several studies discuss that psychoeducation has a very positive impact on patients with cancer (20, 21, 24). Psychological therapy about WBLRP, contains about (memory prompts, namely helping patients not to forget about when they were children - advanced adulthood, the patient's mind space can pour out their feelings) and this intervention can increase expectations in patients with cancer (14).

The hope intervention given should use system support because it can affect depression in patients with cancer, so that it will affect the expected outcome (24). The intervention provided and the support system is the presence of psychotherapy, so that it can increase expectations (15), While studies that say patients can think positively and feel depressed can decrease or decrease due to the support system from health workers, so that hope can increase in patients with cancer (25). Another support system, namely the presence of friends and family makes patients with cancer feel calmer, fear and anxiety disappear (23), and a support system that focuses on couples and families only to reduce stress for patients with cancer (27).

Patients with cancer have a crisis of feelings, character, social relations and religion (16). Some researchers say spiritual interventions make patients with cancer have positive thoughts about the future and less fear(28,29). Group intervention on spirituality through an Islamic religious approach (30), which focuses on prayer, repentance, helping behavior, patience and trust in Allah, spiritual interventions can increase hope in patients with cancer (16). The need for religion for patients with cancer is very much needed in relation to life-threatening diseases so that for health workers for the intervention given must include spiritual intervention because it greatly affects the patient's psychology. (28). Breast cancer patients need to get spiritual intervention because it can foster hope for healing and increase belief in God Almighty (17).

## CONCLUSION

Interventions that can increase expectations are interventions containing psychological and religious elements (workshops, group logo therapy, supportive - expressive discussions, a we chat-based life review program, spiritual group therapy). Psychology contains about cognitive, affective, conative. Psychological therapy teaches how to express opinions, interact with others, and generate self-confidence and think in a positive direction. Spiritual healing is more directing the patient to surrender to the Almighty, to study the spiritual more deeply and not to experience a crisis of faith.

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