Quality of Life and Self Efficacy among Thyroid Patient: A Systematic Review

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Abstract: This study of the literature was done to find out what studies have been done on the connection between self - efficacy and quality of life in thyroid patients. Previous studies that mostly examined various daisies discovered a strong positive correlation. In order to determine which difficulties are pertinent for patients with thyroid diseases, we assess research that report on the effects of thyroid disorders and show the frequency of recognized features, including self - efficacy and general quality of life issues as well as classical thyroid symptoms. We selected most of the "open access" studies from the medical and psychological literature using an integrated selection technique, presuming that these studies could be readily seen, found, and investigated. This included thyroid A literature search between 2004 and 2022 turned up 67 studies that looked at this relationship. This literature evaluation, which comprised about 25 researches, discovered a relationship between thyroid patients' quality of life and self - efficacy. Numerous elements, both psychological and physical, impact the quality of life and self - efficacy of thyroid patients. The data that is now available indicates that thyroid patients' quality of life and self - efficacy are markedly reduced on a variety of dimensions throughout the untreated phase and remain significantly lower in many long - term patients. To assist the patient in regaining psychosomatic equilibrium and improving their quality of life, we must acknowledge the emotional toll that the thyroid diagnosis has on them and work together, interventions designed to explicitly address issues with self - efficacy and long - term quality of life. The study addresses the significance of the results, emphasizes the research's limitations, and investigates this apparent positive correlation in more detail.

Keywords: Thyroid, Quality of life, Self-efficacy

1. Introduction

The definition of quality of life has expanded in recent years as it has drawn the interest of numerous social scientists and medical professionals. Life quality is a multifaceted topic. A widely accepted definition of QOL is lacking (Basavaraj, Navya, and Rashmi, 2010). "A person's perceptions of their position in life in context of the culture and value systems in which they live and in relation to their goals, expectations, standards, and concerns" is how the World Health Organization defines quality of life (QOL). According to the WHO's expanded definition, quality of life is a personal experience. Schalock defines quality of life in terms of one's physical, mental, and social well - being. (2000) as "a concept that reflects a person's desired conditions of living related to eight core dimensions of one's life: emotional wellbeing, rights, interpersonal relationships, material wellbeing, personal development, physical wellbeing, self determination and social inclusion. " QoL measures an individual's ability to operate in daily life as well as how their views of their health state affect their lives (Chan I, Li, Chung, Po, and Yu, 2004). Phillips (2006) asserts that there are two distinct conclusions to be drawn from the subjective and objective quality of life measures. Pleasure is emphasized as the fundamental component of human happiness and contentment with one's quality of life in subjective indicators. On the other hand, the objective indicator concentrates on a very distinct viewpoint. The goal of the current study is to examine factors that may improve the quality of life for thyroid patients. Thus, the idea of quality of life has been applied to the field of health and is thought to be worthy of evaluation when it comes to the prevention, treatment, and rehabilitation of the sick.

The Quality of Life has been linked to various notions due to its psychological component, one of which is self efficacy. Bandura (1997, 2001) defined self - efficacy as an individual's beliefs and/or judgments about their own capacity to engage in any kind of activity as long as it produces the intended outcomes. According to Bandura (1997), self - efficacy is the belief in one's own ability to achieve specific performance levels and exert control over life events. Four primary information sources, in accordance with Bandura (1997), have an impact on how self - efficacious people perceive themselves. These are the following: 1. Experience with mastery 2. Empathy verbal argumentation or 4). Positive associations between self - efficacy and improved health status outcomes have been found in a variety of rehabilitation - related illnesses. This study investigates the factors that determine self efficacy, how it influences a range of behaviors, and how to improve it. It has been shown to have a predictive quality, with successful task completion being associated with positive self - efficacy (Gecas, 1989; Bandura, 1977, and 1994). The World Health Organization's (WHO) notion of health, which includes social, mental, and physical well - being, is linked to quality of life. The foundation for human drive, wellbeing, self - fulfilment, and outcome expectations is this conviction in one's own ability (Bandura, 2001). In addition to self - efficacy and quality of life, psychological wellness is another idea that has been linked to positive health outcomes. We postulated the following based on the central tenet of self - efficacy theory, which holds that improved coping is correlated with higher levels of self - efficacy: 1) Better symptom - related and overall health QOL in patients is linked to higher patient self - efficacy for symptom control; 2) Better spouse QOL is linked to higher partner self - efficacy for symptom control. In a number of

symptom domains, there was a substantial correlation found between patient self - efficacy scores and QOL scores. Since hypothyroidism affects 4 - 5% of people

worldwide, it is considered an endocrine illness.

2. Method

In October 2022, Scholar on Google Because the majority of the research were highly approachable, we selected the medical literature using an integrative selection strategy, with the majority coming from "open access" journals. We utilized a set of terms, or keywords, to conduct a repeatable search: "quality of life, " "thyroid, " and "self efficacy. " MEDLINE / Pub Med and Science Direct were the primary search engines and databases that were utilized. We changed the year range in the search filters to 2004-2022. We found 110 publications in our initial Pub Med search using the terms "quality of life in thyroid patient" and "self efficacy in thyroid patient. " On the original article type, filters were applied. As a result, we limited our selection of publications to those that addressed the two main themes of the study: self efficacy and quality of life in thyroid patients. Using the "quality of life in thyroid" search on the Science Direct database, we were able to locate 25771 articles. We used filters to limit the number of publications to be reviewed to 105 based on the publishing years (2004–2022) and the topics (thyroid, cancer, and patients). Only studies on self - efficacy and quality of life were chosen; publications already included in the study that were found using Pub Med indexing were not included.

The three primary keywords were included in the titles or abstracts of the papers that were found and downloaded. The journals, articles from the reference list, and authors were further investigated to look for research in the field after reference lists of downloaded publications, author frequency, and journals the studies were published in were reviewed. The objective was to look for publications that examined the connection between a thyroid patient's self - efficacy and quality of life. The first author carried out the search.

A PRISMA flow chart (Moher et al., 2009) is depicted in Figure 1 and demonstrates the steps involved in finding, screening, choosing, and determining the inclusion and exclusion criteria in order to determine the final number of studies. Studies on thyroid patients published between 2004 and 2022 met the inclusion criteria. The articles were graded by the first two authors, who also served as reviewers. Any disagreements were settled by discussion and compromise.

After searching and downloading 64 papers in all, seven of them were discarded because they did not assess thyroid function, quality of life, or self - efficacy. As a result, the review contained the final 25 publications. The 25 articles are all quantitative in character.

Study quality assessment

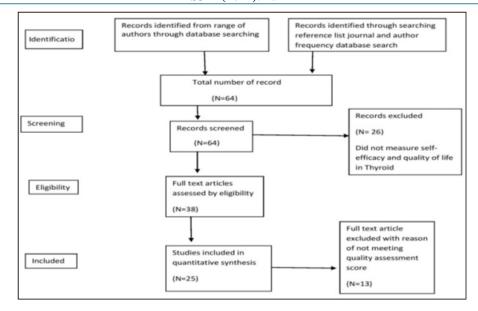
The National Institutes of Health (NIH) edited the Study Quality Assessment Tools, from which the following criteria were modified to evaluate the publications' quality.1. Is the review predicated on a well - defined, well - articulated question? 2. Were the requirements for inclusion and exclusion of the studies predetermined and explicit? 3. Did the strategy for searching the literature employ a thorough and methodical approach? 4. In order to reduce bias, were full - text articles, abstracts, and titles separately and twice reviewed for inclusion and exclusion? 5. Were the internal validity and quality of each included study assessed by two or more reviewers using a standard methodology? 6. Were the key features and findings of all the included studies covered in the list? 7. Was there an evaluation of publication bias? Did heterogeneity undergo assessment? (This inquiry is limited to meta - analyses.). Each criterion received a score ranging from 0 to 8, and the overall quality score also varied from 0 to 8. The co - authors separately reviewed the chosen text first, and then they conferred about the scores. Once each study was given a score, the authors separated it into three groups: low - quality studies (with a score of 0-2), moderate - quality studies (with a score of 3-5), and good - quality studies (with a score of 6-8). Across all included studies, the average score was 8.64. Results from research that received a poor quality score were treated with caution.

Volume 13 Issue 6, June 2024
Fully Refereed | Open Access | Double Blind Peer Reviewed Journal
www.ijsr.net

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International Journal of Science and Research (IJSR) ISSN: 2319-7064

SJIF (2022): 7.942



3. Analysis

Tables 1 and 2 provide a descriptive assessment of every study. It contains information on the study's methodology, participants, measurements, and conclusions. The twenty-five papers that met the inclusion requirements were

examined, analyzed, and grouped according to recurring patterns and themes. These groups included the participants and sample population, as well as the measurements and other factors. There is additional discussion of other literature that bolsters the themes.

Table 1: Shows a summary of the research conducted only with Thyroid patient

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					in patients' quality of life	

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	(2018)		health - related quality of life (QoL).	Given a chronic illness diagnosis Participants in the formal education class showed an overall improvement in their quality of life scores. The results of this study were in line with those of earlier investigations into the impact of thyroid management education on hypothyroidism patients' quality of life. Patients with hypothyroidism may have a higher quality of life because to upcoming thyroid management classes.	
7	Buffart, Laurient M. (2012)	306 individuals	A survey on disease - specific symptoms (THYCA - QoL) and HRQoL (EORTC QLQ - C30) was received by the Eindhoven Cancer Registry.	 After correcting for comorbidities, thyroid cancer survivors scored considerably poorer on physical, role, emotional, cognitive, and social functioning (p < 0.001) as compared to the normative group. The variance in HRQoL was explained by psychological issues in 41–58% of cases. Compared to clinical and sociodemographic parameters alone, neuromuscular, sympathetic, concentration, and psychological symptoms unique to thyroid cancer are more strongly correlated with HRQoL. Being aware of these particular HRQoL variables may enable medical professionals to deliver more effective supportive care. 	6
8	Mary Kata Luddy (2021).	182 patients	Version 2 of the HRQOL Short Form 36 Brief Fatigue Inventory.	• For patients with malignancy compared to benign disease, the	5
9	Applewhite, Megan K. (2015)		Physical, psychological,	This underscores the importance of receiving a thyroid cancer diagnosis and calls for more research on ways to enhance care for this growing patient population. In NATCSS, the average overall QOL was 5.56.	5
10	ELENA BÃRBU\/ 2017	16 relevant studies		Patients with thyroid cancer have multiple issues impacting their quality of life (QoL), with both physical and psychological effects. The patient restores psychosomatic balance and recovers quality of life.	5
11	Werneck, Francisco Zacaron (2018)	33 women are euthyroid and 22 have sHT.	HRQoL was evaluated using the SF - 36 survey.	 After the training period, the sHT - Tr group shown improvements in functional ability, general health, emotional aspects, and the mental and physical components of HRQoL, but the sHT - Sed group did not exhibit any discernible changes. Women with sHT experienced notable improvements in HRQoL 	6
12	Lvona loncar/2022	67 patients	The thyroid - specific patient - reported outcome questionnaire (ThyPRO - 39) and the short form health survey questionnaire (SF - 36)	The ThyPRO - 39 overall QoL - impact scale and the SF - 36 physical component scale both shown a noteworthy improvement in the patients. With a median age of 50.0 years, 91.0% of the population was female.	6
	Parvin Abedi and Sohaila Rezaei/2020	hypothyroidism patients. CBT group (n = 48) and control group (n = 48) are the two groups.	The CBT group was divided into four subgroups of twelve, and each subgroup had eight counseling sessions, each lasting ninety minutes. A demographic questionnaire and the 36-item Short Form Health Survey (SF 36), which measures quality of life, were used to gather data.	 improvements in physical functioning, physical health issues, social functioning, and pain. The differences between the two groups were not statistically significant. The CBT group performed significantly better than the control group on the measures of overall health, energy and emotions, emotional health problems, and emotional health (p < 0.05). Among patients with hypothyroidism, cognitive behavioral therapy (CBT) counseling might enhance emotional well - being, difficulties related to emotional well - being, energy levels, and overall health. 	7
14	Andrea Garcia - Arteaga (2013)	17 women with sHT, Age - 40 - 65 years	Version 2 of the HRQoL Short - Form Health Survey (SF - 12) questionnaire	 HRQoL has significantly improved in the majority of domains. The correlation between physical dimensions of quality of life and thyroid hypofunction in sHT suggests that physical findings may have an impact on some psychological aspects of the condition. The impact of a moderate exercise program on quality of life connected to health. The general health domain, one of the four domains included in the physical component summary, demonstrated a noteworthy impact of the exercise intervention. 	7
15	Susanne Singer (2012)	121 patient	The QLQ - C30, the European Organization for Research and Treatment of Cancer's primary questionnaire on quality of	In the domains of fatigue, role functioning, and sleeplessness, the group (patients vs. general population) had the strongest effects. In the categories of social functioning, role functioning, weariness, nausea/vomiting, and financial difficulties, there were	6

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			life	notable interactions between age and group. • With the exception of the domains of physical function and overall health status, quality of life was unrelated to the disease's stage.	
16	Novoa Gómez, Mónica María / 2010	75 patients	The Quality of Life Questionnaire SF - 36 Health (Ware & Sherbourne, 1992) and the Index of Psychological Well - Being (Dupuy et al., 1984).	a strong, favorable, and directly proportionate relationship between the amount of time patients reported having their thyroidectomy and their level of psychological well - being and quality of life	5
17	Anu Sharma (2022)	140 patient Age 65 and older	SF - 36, MOS - 36, HQOL, or Medical Outcome Short Form	Shown by substantial research and clinical experience that thyroid eye illness has a major influence on quality of life, improvements were similar across all categories.	5
18	Moon Jeong - Ah (2012)	121 women with thyroid cancer		Higher self - efficacy and lower barrier perception on choosing low - iodine foods and restricting high - iodine foods; lower self - efficacy and higher barrier perceptions on making low - iodine meals. The self - efficacy score increased as their interest in the dietary life and perceived cooking skills were greater.	6
19	Jiaying Xia and Jing He in 2021	Thyroid cancer affected 96 individuals. Group on WeChat (n = 47) against group on traditional (n = 49).	Effectiveness of self - management, the Chinese translation of C - SUPPH (Strategies Used by People to Promote Health). The Self - Assessment Depression Scale (SDS) and the Self - Assessment Anxiety Scale (SAS)	Interventions can successfully lower risk events, enhance the effectiveness of self - management, and lessen patients' negative feelings related to thyroid cancer, resulting in fewer unpleasant reactions. Prior to the intervention, there was no significant difference in the two groups' scores for stress reduction, positive attitude, and self - determination. Following the intervention, they were higher in both groups, with the WeChat appgroup showing a considerable increase over the conventional group.	7
20	WANG Xin (2022)	90 patients	45 patients in the control group and 45 cases in the observation group. The monitoring group was given a solution - focused methodology.	 Prior to the intervention, there were no discernible variations in the anxiety and self - efficacy levels Following the intervention, the observation group's anxiety scores were significantly lower than those of the control group. Patients with tracheotomies for thyroid cancer can have less anxiety and an increase in self - efficacy and patient satisfaction when a solution - focused approach is adopted. 	5
21	Z X Wang and J Y Hang (2017)	363 patients	The Chinese versions of the hospital anxiety and depression scale, the medical coping questionnaire, the SUPHH questionnaire, and the patient general condition questionnaire		5
•22	• Dehnavi Hadis (2020)	30 participants, 15 for each of the pre - and post - tests	The sex self - efficacy questionnaire (Vaziri and Lotfi, 1392) and the sleep quality questionnaire (Petersburg, 1989)	The relationship between sexual self - efficacy and sleep quality and hypothyroidism is significant at the level of (0.01) Patients with hypothyroidism have reported changes in their sexual self - efficacy and sleep quality as a result of the Integrative approach of reality - Emotion - focused treatment.	6
23	Yufen Zhuang, Qian Huang, 2021	The observation group (n=62) and the control group (n=57)	Self - care Ability Scale, Short Form Health Survey (SF - 36), General Self - Efficacy Scale, and Self - rating Anxiety Scale	The study found significant differences in self - efficacy scores between groups before and after intervention, with the observation group showing higher scores than the control group. Both groups also showed increased self - care ability scores and SF - 36 scores.	6
24	Kim S, Kim H, Oh EG, Kim H, Park KA, 2022	354 thyroid	The Korean version of Health Promoting Lifestyle Profile questionnaires includes measures of social support, self - efficacy, fear of recurrence, and symptoms, as well as a quality of life tool for Korean thyroid questions.	 The results of this study have confirmed that social support and self - efficacy have an impact on health promotion. Self - efficacy (t=4.76, p= (<.001)) was a determinant of health promoting behavior in the acute stage. 	5
25	Huang Meng (2023)	Thyroid carcinoma was differentiated in 126 cases.	Chinese citizens' health literacy and the HRQOL	• The level of health literacy of the patients should be considered while making interventions to enhance HRQOL. The HRQOL of DTC patients with regard to fatigue and anxiety/depression status is positively correlated with health literacy and DTC - related education among individuals with DTC, according to this study. •The community at large should be incorporated in outreach	6

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health initiatives and thyroid disease screening programs in order to enhance the HRQOL of DTC patients.

4. Results

Twenty - five studies were found to be qualified in total. Table 1 provides a description of these investigations. The researches were primarily quantitative in nature.

Sample population and participation

A thyroid sample with self - efficacy and quality of life was utilized in 25 investigations. An average of 14, 922 people were used in these studies. The minimum and maximum numbers of participants were 17 (Andrea Garces -Artage/2013) and 368 (G. P. Bianchi 2004). Both men and women participated in the studies. Data had been collected from a sample population of women in the majority of the research. According to (G. P. Bianchi at all /2004), patients with thyroid disorders who were sent to a secondary level endocrinology unit had substantially lower HRQL. According to Emma G. Walshaw's study from 2022, thyroidectomise might lower HRQOL. The thyroid and quality of life appear to be inversely correlated.

Measure used

Quality of life and self - efficacy are multifaceted concepts. Consequently, the way they are conceptualized and operationalized in research. The Health-Related Quality of Life Short Form - 36 (SF - 36) is used in seven research to measure quality of life (Ware & Sherbourne, 1992). In his study, Eva Stokhuijzen discovered that thyroid disease throughout childhood has a major impact on quality of life. (Stokhuijzen, Eva, 2015). According to one study, the quality of life for thyroid patients has improved statistically significantly. (Popal, Tahimina (2018)). Research has demonstrated the significance of self - efficacy in achieving improved health outcomes (Bandura, 1997). More precisely, studies have demonstrated a favorable correlation between patients' QoL and self - efficacy in the context of thyroid cancer patients, including a decrease in stress (Kreitler, Peleg, & Ehrenfeld, 2006). Women's self - efficacy was found to be a predictor of emotional well - being one year later by Rottman, Dalton, Christensen, Frederiksen, and Johansen (2010), but it was unrelated to physical and social health. The self - efficacy and the overall quality of life (OoL) showed a moderate to high positive correlation. OoL increases with levels of psychological well - being and self efficacy. The overall quality of life and self - efficacy showed a strong correlation. (De Castro Elisa Kern, 2012). The findings showed that improved mental and physical HRQoL were correlated with higher levels of self - efficacy.

Long - and short - term self - efficacy is a predictor of life quality (Jasem Allah yariat at all 2017). Additional research also showed that partners with higher self - efficacy ratings for assisting the patient in managing symptoms also had higher quality of life. Lastly, exploratory analyses showed that greater patient self - efficacy was linked to reduced anxiety and caregiver stress in spouses, and that higher partner self - efficacy was linked to improved patient mental health and better adjustment to bowel and hormone symptoms.

5. Discussion

Worldwide, hypothyroidism is a prevalent ailment that has detrimental effects on health. Women are more likely than males to have hypothyroidism, and the condition is closely linked to aging. For the majority of women, the physical component is far more significant than the possibility of having a thyroid. In relation to this topic, it would be intriguing to investigate the point at which the quality-of-life declines from the moment a condition is diagnosed until the moment following a thyroidectomy. Low quality of life ratings is a result of hypothyroidism symptoms in young women, which include weakness, constipation, irritability, weight gain, cramping in the muscles, atypical menstrual cycles, and exhaustion. As anticipated, the group receiving rh - TSH exhibited superior outcomes and a higher standard of living in contrast to the group receiving thyroid hormone withdrawal. While there are certain clinical scenarios where a doctor is compelled to employ this technique, it is not commonly used worldwide. Research has shown that, in comparison to the general population, patients with hypothyroidism often experience lower HRQoL. The study of women revealed median mental component summary and general health scores that were comparable to those of other patient populations with problems including obesity or sedentary lifestyles.

The correlation between physical features of quality of life in the SF - 12 evaluation and cardio respiratory fitness in the current study suggests that some psychological aspects of thyroid hypo - function, when present in sHT, may be influenced by physical results. One or more aspects of the quality of life related to health was positively correlated with the levels of physical activity. The appropriate amount of physical activity, in particular, has a significant impact on mental and physical health as well as general well - being. The level of physical activity appeared to be more closely correlated with the physical elements of HRQoL than it is with the mental component summary and overall health, which are physical characteristics. This result is in line with a number of earlier investigations.

Compared to the control group, the physical health of hypothyroidism patients was severely influenced in terms of quality of life, while the mental health was not as much affected as the physical health. More behavioral changes are encouraged by higher self - efficacy, which is characterized as confidence in one's ability to carry out specific activities. (JY Koo, 2007). Self - efficacy, defined as a person's confidence in their ability to carry out the actions required to achieve particular performance goals, can support patients in maintaining their mental and physical well - being by allowing them to participate in educational activities, improving their capacity for self - care, and enabling them to make decisions on their own in the event that doctors and nurses are not available. He J. (2021) More precisely, studies have demonstrated a positive correlation between cancer patients' quality of life and self - efficacy. This correlation has been demonstrated in relation to lowered stress levels in patients (Kreitler, Peleg, & Ehrenfeld, 2006), better

relationships with caregivers, and increased physical activity (Perkins, Baum, Taylor, & Basen - Engquist, 2009). The purpose of the study was to examine quality of life, psychological well - being, and self - efficacy over an extended period of time in adults with cancer. Potential gender differences were also investigated. Because they had gotten used to the treatment, the patients would have improved quality of life and psychological well - being indicators a year after the initial evaluation. The quality of life increases with psychological stability and self - efficacy. Self - efficacy, psychological well - being, life satisfaction, and mental health were found to be positively correlated in studies (Kreitler, Peleg, & Ehrenfeld, 2006; Campbell et al., 2004; Rottman, Dalton, Christensen, Frederiksen, & Johansen, 2010).

6. Conclusion

Recent years have seen an increase in interest in studies on self - efficacy and quality of life. Thyroid requires special attention with relation to this matter because of its high survival rate and long - term follow - up. As a result, additional tactics need to be created to strengthen the bond between the doctor and patient. In order to assist the patient in regaining psychosomatic equilibrium, quality of life, and self - efficacy, we must recognize the emotional toll that the thyroid diagnosis has on them and work together. The Integrative method of reality - Emotion - focused treatment has been shown to improve quality and promote self efficacy in individuals with hypothyroidism. One can interpret the stability of the psychological well - being, self efficacy, and quality of life levels as a successful outcome. (De Castro Elisa Kern, 2012). The QoL, psychological well being, and self - efficacy substantial relationships that have been seen are consistent with the stability of these variables over a one - year period. According to previous research (Kreitler, Peleg, & Ehrenfeld, 2006; Campbell et al., 2004; Rottman, Dalton, Christensen, Frederiksen, & Johansen, 2010), self - efficacy and psychological well - being, quality of life, and mental health are positively correlated. Theoretically appropriate and predicted, the strong relationships between psychological well - being and QoL reflect the idea that happier patients will have higher quality lives, the variations between men and women's OoL and psychological well - being levels. Given that self efficacy is a subjective construct unique to each individual, the lack of substantial variations in self - efficacy between men and women makes sense (Bandura, 1997, 2001). According to Bandura, self - efficacy offers clues about a person's long - term adaptability, notably with reference to their health. According to one study, there were still significant discrepancies in men and women's QoL and self efficacy levels, but overall, they were similar. It's possible that men and women process cancer diagnosis and treatment at different rates, and as time goes on, their quality of life and general well - being may become more similar.2012; Lisa Kern de Castro. Despite our findings showing self efficacy for physical exercise among these cancer patients is correlated with perceptions of specific health - related QOL factors. Research findings indicate that the association between patients' quality of life and health literacy is mediated by their level of self - efficacy. Self - efficacy is the capacity for self - assurance and initiative in assuming control. According to Paasche - Orlow and Wolf's approach, patients who possess a high level of health literacy are more likely to possess sufficient self - efficacy to enhance their overall quality of life. Positive feelings derived from self - efficacy can impact an individual's psychological state and overall quality of life.

7. Finding

The study's conclusions demonstrated the strong correlation between psychological well - being, self - efficacy perception, and quality of life, and how these relationships held steady over the course of a year for the study's participants. The gender disparities suggest that women may be more psychologically susceptible to the illness. Self - efficacy can affect physical activity, and physical activity is good for one's health. According to recent studies, self - efficacy may play a significant role in explaining individual variations in the capacity of patients and caregivers to manage chronic illnesses.

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