

Olivia J. (2025) EVALUATING THE IMPACT OF PENDER'S HEALTH PROMOTION MODEL ON PHYSICAL ACTIVITY AND REHABILITATION IN CANCER SURVIVORS. Revista Internacional de Medicina y Ciencias de la Actividad Física y el Deporte vol. 25 (99) pp. 90-104
DOI: <https://doi.org/10.15366/rimcafd2025.99.007>

ORIGINAL

EVALUATING THE IMPACT OF PENDER'S HEALTH PROMOTION MODEL ON PHYSICAL ACTIVITY AND REHABILITATION IN CANCER SURVIVORS

Johnson Olivia

Monash University, Melbourne, Australia.

Recibido 10 de Marzo de 2024 **Received** March 10, 2024

Aceptado 13 de Octubre de 2024 **Accepted** October 13, 2024

ABSTRACT

This study examined the factors that influence the health promotion behaviors of cancer patients, with a focus on Pender's health promotion model (1996). Fifty patients were asked to complete a standardized questionnaire. employing a model of the smart PLS Algorithm to measure the study analysis. The criteria that predicted the participants' health promotion behavior included social support, commitment to a plan of action, prior behavior, activity-related impacts, perceived self-efficacy, family function, expected benefits of action, and situational influences. The overall explanatory power of these variables is 57.8%. A nursing intervention plan that enhances patient adherence to health promotion behaviors must be created and put into practice if cancer patients undergoing rehabilitation are to maintain their best possible health and have satisfying lives. According to research, patients with low levels of prognostic markers need special care.

KEYWORDS: Pender's Health Promotion Model (PHPM), Physical Activity (PA), Rehabilitation (RR), Cancer Survivors (CS).

1. INTRODUCTION

One of the biggest factors affecting well-being in the modern world is lifestyle. A person's lifestyle is their typical way of living and behavioral patterns that may either be beneficial or harmful to their health. These include their eating habits, time management, exercise routines, and usage of medical services. While unhealthy lifestyle choices have the opposite effect, healthy lifestyle choices lead to improved health. Any action taken to enhance the health and self-fulfillment of a person or community is considered a health-

promoting behavior. People must live a healthy lifestyle since they are also responsible to society, their families, and themselves. Lifestyle is defined by the World Health Organization as distinct and recognizable behavioral patterns that result from the interplay of socioeconomic, environmental, social, and human characteristics. Additionally, they believe that there is no such thing as the ideal lifestyle and that a person's lifestyle is influenced by a variety of factors that are specific to them. By 2020, noncommunicable lifestyle-related disease are expected to account for seven out of every 10 fatalities in emerging nations. Noncommunicable diseases are expected to account for about 70% of all diseases in Iran by 2025, according to the country's Statistics Centre. Women's health is one of the World Health Organization's top concerns, and it is regularly discussed at meetings. Putting women's health first will help countries reach several Third Millennium Development Goals. Because women account for about half of the population, their health is viewed as both a human right and a factor influencing the health of families and society as a whole. Future generations' lifestyle choices may make them healthier, affecting the physical, psychological, mental, and social well-being of other family members. Sanchez and colleagues report that more than 80% of women aged 18 to 55 participate in high-risk, preventable lifestyle habits. Furthermore, Tamakoshi's research found that 18% of women's deaths can be averted with lifestyle changes (Park et al., 2022). We used the Pender health promotion model to prepare for healthy behaviours and health promotion. This model, which considers individual experiences and features, as well as emotions and beliefs about conduct, is one of the most universal and predictive models of health-promoting activities. Prior health-related conduct and personal variables are two components of personal experiences and qualities that influence behaviour both directly and indirectly through feelings and thoughts. Perceived advantages, perceived hurdles, perceived self-efficacy, sentiments linked with actions, interpersonal influencers, and situational influencers are examples of emotions and cognitive processes (Hsia et al., 2024). The experimental group's mean perceived benefits score increased after the intervention, and this increase was statistically significant. Perceived benefits are seen as direct behavioural motivators in the health promotion approach. The mean perceived barrier score for the experimental group decreased after the intervention. The importance of barriers as a predictor of health-promoting actions has been supported by empirical research, which has repeatedly shown that anticipated impediments affect both the intention to engage in a particular behaviour and its actual execution. The bulk of the interventions were carried out and anticipated during the women's awareness training session, which relates to the perceived obstacles in this study. In the majority of cases, women were equally conscious of the obstacles and their role in engaging in practices that promote health. Our study's findings showed that the targeted educational intervention was unable to statistically significantly improve its score and that there was no statistically significant difference in the situational influencer structures after the educational

intervention. A low situational influences score indicates that a person does not fully understand any situation or environment that might support or contradict his actions. The experimental group's mean commitment to action score rose statistically considerably after the session. Our results were supported by the research, which showed that students were more likely to maintain their commitment to plan a regular meal if they expressed greater levels of self-efficacy and positive feelings about eating breakfast (Zhong et al., 2023). The fact that women used the self-expression technique to complete the surveys was one of the study's flaws; as a result, some of the questions may not have been accurately and completely answered, which might have affected the study's findings. Significant qualitative and quantitative research should be conducted by other academics to identify the obstacles and enablers of women's health-promoting activities. We discover that the recommended teaching program raised women's scores in all area of Pender's health promotion model and lifestyle. Training programs should be developed and given consistently in order to achieve the ultimate goal.

2. Literature Review

Studies explain that intestinal carcinoma is the 3rd most normal danger in Persia. Taking care of oneself is a certain one best non-pharmacologic intercessions to dominating the impacts of the infection & the results of medications. The discoveries of this research demonstrate that the instructive mediation in view of Pender wellbeing advancement paradigm successfully advances taking care of oneself ways of behaving amid sufferers along intestinal carcinoma(ZEnooZadEh et al., 2023). The objective of this study is to investigate the variables impacting wellbeing advancing ways of life & the progressions in wellbeing conduct Self-viability & wellbeing advancing ways of life amid women invasive carcinoma castaways more than a Six-Month time frame. The results of this explore indicates that more youthful invasive carcinoma castaways, that over there having a lifelong break, & that along chronic weakness conduct Self-viability were few inclined to participate in a wellbeing advancing way of life & might oblige direction in further developing generally wellbeing ways of behaving(Hsia et al., 2024). Researchers reveal that the idea of Self-viability is a deciding component in numerous ways of behaving connected with wellbeing advancement & wellbeing schooling. A few experimental tests came to be led in various regions of the planet on various populaces with respect to the effect of preparing in view of the Pender's Wellbeing Advancement Paradigm on Self-viability, pliant clashing outcomes. The consequences of this research demonstrated that preparing in view of the Pender's Wellbeing Advancement Paradigm altogether expanded Self-viability. Thusly, it appears to be that preparing in view of this paradigm may emphatically affect people's Self-viability(Jalali et al., 2024). The purpose of this research is to investigate the variables affecting initial deployment ways of behaving & sufferers' necessities in fundamentally sick sufferers post gastric varices. This

research utilized experiential study, & Pender wellbeing advancement Paradigm was utilized to develop the meeting conduct. The 3 regions & 9 subjects excavated in this research are useful toward the drawn out advancement of initial deployment in sufferers post Liver varices(Zhong et al., 2023). Studies suggest that developing a complete administration schedule toward prostatic carcinoma medical procedure sufferers in view of the Pender's wellbeing advancement paradigm, to direct medical attendants in executing recovery, schooling, & sequel operate toward prostatic carcinoma medical procedure sufferers, & to give a premise to forming prostatic carcinoma healthcare rules. The outcomes of this explore show that the thorough administration schedule toward prostatic carcinoma medical procedure sufferers in light of the Pender's paradigm created via investigation is logical & dependable, that may give mention to healthcare exploration & exercise of prostatic carcinoma medical procedure sufferers(Yu et al., 2024). Scholars suggest that the expansion in the occurrence of invasive carcinoma is mostly represented by expansions in future because of enhancements in general wellbeing, yet in addition connected with an expansion in danger components toward carcinoma involving smoldering, abundance body-fat, diminished actual work, & alterations in conceptive movement. Wellbeing advancing way of life is accordingly a certain one significant subjects of significance in concentrating on constant ailments & carcinoma. Wellbeing advancement mediations, involving the utilization of treatment paradigm, have a tremendous commitment to induce regarding ideal finding & further developed endurance(Tabrizi et al., 2020). Studies purpose to plan & give an outline of writing regarding healthcare systems & mediation schemes that advance sound ways of behaving in carcinoma sufferers. Healthcare mediations are compelling in advancing wellbeing ways of behaving when incorporate wellbeing training & support regarding alteration. Surviving is the ideal period for wellbeing advancement. Medical attendants maybe viewed as wellbeing advertisers, by empowering wellbeing instruction & upgrade castaway's inspiration(Peixoto et al., 2021). The aim of this study is to decide the impact of attendant drove scheme in light of Pender Wellbeing Advancement Paradigm on the workout ways of behaving of heart failure aorta sufferers. The outcomes of this study show that the medical caretaker drove scheme has been displayed to expand the workout conduct in the mediation bunch(Karataş & Polat, 2021). Studies intended to characterize the idea of beneficial way of life amid intestinal carcinoma stayers in view of the current writing. The findings of this study demonstrate that the meaning of beneficial way of life amid intestinal carcinoma stayers gave in the current review might be utilized in directing, instructive, strong, & caution schemes toward intestinal carcinoma stayers to work on their personal satisfaction & endurance(Tabriz et al., 2023). The outcomes of this study reveal that a wellbeing advancement preparing scheme coating actual work/work out, solid nourishment, powerful correspondence, adapting to pressure, & expanding wellbeing obligation emphatically affected sound life-style ways of

behaving in this populace, & epoch, instructive standing, & passed period following determination impact sound life-style ways of behaving in endurance(Çol et al., 2024). Studies discoveries demonstrated that instructive mediation in light of Pender's wellbeing advancement paradigm has expanded the notch of sound way of life in ladies. Hence, preparation & executing instructive intercessions to further develop wellbeing advancement ways of behaving in view of this paradigm is fundamental(Sadeghi et al., 2022). Studies showed that taking care of oneself Self-adequacy & wellbeing advancing ways of behaving to some degree intervened the connection among fear of carcinoma recurrence & post-traumatic growth in cervix carcinoma stayers post medical procedure. Executing custom-made intercessions concentrated on upgrading taking care of oneself Self-viability & wellbeing advancing ways of behaving amid cervix carcinoma stayers might assist with lightening worries regarding cervix carcinoma repeat & improve post-traumatic growth perusing a medical procedure(Li & Su, 2024). Researchers determined that actual work is related with decreased pressure, nervousness, & gloom. Serial multiple mediation Analysis outcomes showed that independent inspiration was related with Self-adequacy & responsibility, & that elements were fundamentally connected with actual work. Oneself-adequacy & responsibility fundamentally intervened the connection among independent inspiration & active work. Independent inspiration accordingly assumes a significant part in foreseeing the actual work degrees of grown-ups with handicaps, justifying the consideration of an independence build in the Health action process Approach paradigm(Wu, Chan, Tansey, et al., 2024). Scholars point in this research was to all the more likely comprehend the mediation impact of Pender paradigm on the corporeal & emotional well-being of sufferers with DM. Pender paradigm demonstrated a decent intercession impact on the wellbeing information, Self-administration conduct & mental capability of sufferers along DM(Ren & Li, 2023). Studies was led to decide the impacts of electronic intelligent healthcare encourage scheme ready in accordance with Wellbeing Advancement Paradigm on solid life-style ways of behaving & Self-viability of sufferers who recovered Weight pursuing metabolous & obesity medical procedure. To guarantee the progression of after-employable sufferer development, it's prescribed to expand the significance of phone directing & to lay out sequel scheme in view of the Wellbeing Advancement Paradigm(Yıldız & Karagözoğlu, 2023). The discoveries of this survey will act as an aide toward medical care suppliers in improving actual work adhesion amid sufferers along non-transmittable sicknesses over a disease discernment procedure. This technique might be incorporated toward center interviews & mediation schemes. Prospective examinations are justified to assess the viability of the ailment discernment technique in advancing active work adhesion(Syed Shamsuddin et al., 2024). Studies aim was to decide the elements related with standard actual work amid learners utilizing Pender wellbeing advancement paradigm. The acceptable prescient worth of Pender wellbeing advancement paradigm

builds toward actual work conduct concentrated on powerful designs, for example, comprehended boundaries, upholds the use of this paradigm to plan instructive mediations ameliorate (Saboteh et al., 2021). Studies purpose is to assess the impacts of an objective situated intercession on Self-administration ways of behaving & Self-perceived burden amid sufferers post intense fondle. The objective arranged intercession in view of Pender wellbeing advancement paradigm may really further develop one's-administration ways of behaving & lessen corporeal & profound Self-perceived burden amid fondle stayers (Chen et al., 2021). Studies researched the impacts of sound way of life mediations on wellbeing associated personal satisfaction in youth & juvenile carcinoma stayers. Fields of sound way of life mediations toward youth & juvenile carcinoma stayers demanding additional review were distinguished, & desires & bearings of examination toward comprehensive wellbeing the executives were proposed (Kang et al., 2023). Studies elaborate that Individuals with inabilities keep on adapting to elevated degrees of pressure, for example, incapacity associated pressure & socio-political pressure. Assisting individuals with handicaps take part in normal active work to further develop wellbeing & diminish pressure is a higher priority than at any other time. Studies major areas of strength to offers help toward the health action process approach builds, that may be utilized to illuminate the advancement regarding hypothesis impelled & experimentally upheld actual work mediations to further develop wellbeing, pressure the executives, & prosperity of individuals with inabilities (Wu, Chan, & Ditchman, 2024). Researchers observed that builds from the well-being promotion paradigm are experimentally worked on dietetic way of behaving amid the ladies' populace. The outcome gives a reasonable wellspring to planning techniques of a nourishment training mediation for working on the recurrence & supplement admission of brunch utilization amid women learners (Shahroodi et al., 2022). The objective of this study is to investigate the hypothetical develops that worked as arbiters of intercessions for temperate-to-robust active work upkeep amid invasive carcinoma stayers (Zhao, 2024). Physical activity upkeep endeavors ought to concentrate on reinforcing invasive carcinoma stayers' one's-adequacy & acquiring societal help (Pinto et al., 2023). Considering the familiar advantages of actual work for carcinoma stayers, this experimental review tried to examine the take-up of physical activity amid this populace in the US. The discoveries of this study might assist with illuminating physical activity mediations to work on their plan & focusing to various ethnic gatherings of carcinoma stayers (Mbous et al., 2023). The target of this explore is to survey either way of life mediations may prompt good wellbeing results & further developed Quality of life in intestinal carcinoma stayers, researchers played out a postmodern-examination. Way of life mediations might produce an expansion in active work duration, metabolous comparable errand degrees, & Quality of life in intestinal carcinoma stayers (Zhou et al., 2024). The reason for this research was to distinguish contrasts in components influencing wellbeing elevating ways of behaving as per the endurance phase of thyroidal carcinoma

stayers. The encounter of thyroidal carcinoma stayers fluctuates while they proceed over the endurance phases; accordingly, wellbeing advancement intercessions ought to be custom-made to every endurance phase(Park et al., 2022).

3. Descriptive Statistical Analysis

Table 1: Result of Descriptive Statistical Analysis

NAME	NO.	MEAN	MEDIAN	SCALE MIN	SCALE MAX	STANDARD DEVIATION	EXCESS KURTOSIS	SKEWNESS	GRAMÉR-VON MISES P VALUE
PHPM1	1	1.760	2.000	1.000	3.000	0.618	-0.529	0.214	0.000
PHPM2	2	1.520	1.000	1.000	3.000	0.608	-0.366	0.747	0.000
PHPM3	3	1.640	2.000	1.000	3.000	0.625	-0.609	0.458	0.000
PHPM4	4	1.480	1.000	1.000	3.000	0.608	-0.133	0.905	0.000
PA1	5	1.680	2.000	1.000	3.000	0.705	-0.833	0.560	0.000
PA2	6	1.460	1.000	1.000	3.000	0.639	0.149	1.103	0.000
PA3	7	1.960	2.000	1.000	3.000	0.692	-0.878	0.054	0.000
PA4	8	1.640	2.000	1.000	3.000	0.686	-0.701	0.622	0.000
RR1	9	1.620	2.000	1.000	3.000	0.660	-0.610	0.615	0.000
RR2	10	1.720	2.000	1.000	3.000	0.665	-0.736	0.397	0.000
RR3	11	1.640	2.000	1.000	3.000	0.625	-0.609	0.458	0.000
RR4	12	1.520	1.000	1.000	3.000	0.574	-0.610	0.573	0.000

The previous findings of table 1 show that descriptive statistical analysis describes the mean values, median rates, minimum values, and maximum values, as well as the standard deviation rate of each dependent and independent variable. The results also describe the probability value. The PHPM1,2,3, and 4 are considered independent variables, and their mean values are 1.760, 1.520, and 1.640, respectively. Additionally, the 1.480 result indicates that all of them have a positive average mean. The standard deviation rate is 61%, 60%, and 62% away from the mean value. The overall lowest is 1.000, the median is 2.000, and the highest is 3.000. The results suggest that PA1, 2, 3, and 4 have positive average rates with levels of 1.680, 1.460, and 1.960, respectively. The RR1,2,3, and 4 are considered dependent variables, and their mean values are 1.720, 1.640, and 1.520, respectively, indicating a positive average value of mean. Each dependent variable has a standard deviation value of 66%, 62%, and 52% from the mean value. The total probability value is 0.000, indicating a 100% significant value between them.

3.1. Settings-Based Approach

The WHO's Healthy Settings approach to health promotion defines settings as unique systems that connect health-promoting programs to community involvement, equity, empowerment, and cooperation. According to the World Health Organisation, a setting is "the place or social context in which people engage in daily activities in which environmental, organisational, and personal factors interact to affect health and wellbeing." This theory recognises eleven various settings, including cities, villages, municipalities and communities, schools, workplaces, marketplaces, residences, islands, hospitals, prisons, and universities.

3.2. Health Promoting Hospitals

In a hospital, health promotion seeks to improve the well-being of patients, workers, and the community. This is accomplished by incorporating health-promoting concepts, techniques, and values within the institution's structural and cultural frameworks. A management structure must be established, medical and non-medical staff must be included in health promotion communication, action plans for health promotion strategies and initiatives must be developed, and health results and their impact on staff, patients, and the community must be measured and investigated. The International Network of Health Promoting Hospitals and Health Services is the official global network for promoting and disseminating health promotion concepts, guidelines, and recommendations in hospitals and healthcare settings.

3.3. Workplace Setting

Health promotion may be beneficial in any business or place where people live, work, play, and love. Workplaces are a typical setting. Workplace health concentrates on intervention and prevention to lower health hazards for employees. The US Public Health Service published a study in 1996 with the title "Physical Activity and Health: A Report of the Surgeon General". At the time, it offered a comprehensive analysis of the corpus of research on the connection between physical exercise and health.

According to the survey, more than 60% of Americans do not regularly participate in physical exercise, and 25% are completely sedentary. Numerous health benefits of physical activity are well-established. Promotion of health can occur in a variety of settings. Particular attention has been paid to workplaces, medical services, educational institutions, and the surrounding area. "Workplace health promotion," as it is commonly known, is defined as "the collaborative efforts of employers, employees, and society to enhance the health and well-being of people at work."

As per the World Health Organisation (WHO), the workplace "has been established as one of the priority settings for health promotion into the 21st century" because of its influence on "physical, mental, economic, and social well-being" or because it "provides an ideal setting and infrastructure to support the promotion of health of a large audience." According to the Centres for Disease Control and Prevention, "One of the most effective disease prevention behaviours is regular physical activity." Exercise programs increase vitality, strength, and endurance, reduce anxiety and depression, and lower the risk of chronic conditions including heart disease, high blood pressure, and type 2 diabetes. Additionally, they aid in weight loss, particularly when paired with a nutritious diet.

4. Correlation Coefficient Analysis

Table 2: Result of correlation coefficient analysis

	PHPM1	PHPM2	PHPM3	PHPM4	PA1	PA2	PA3	PA4	RR1	RR2	RR3	RR4
PHPM1	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
PHPM2	0.040	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
PHPM3	0.190	0.124	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
PHPM4	0.119	0.136	0.086	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
PA1	0.268	0.218	0.056	0.078	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
PA2	0.126	0.204	0.186	0.105	0.105	1.000	0.000	0.000	0.000	0.000	0.000	0.000
PA3	0.022	0.002	0.172	0.002	-0.067	-0.320	1.000	0.000	0.000	0.000	0.000	0.000
PA4	0.062	0.031	0.069	0.031	0.093	-0.170	0.096	1.000	0.000	0.000	0.000	0.000
RR1	0.169	0.205	0.138	0.305	0.040	0.083	-0.165	-0.391	1.000	0.000	0.000	0.000
RR2	0.115	0.234	0.143	0.014	0.321	0.209	-0.068	-0.046	0.077	1.000	0.000	0.000
RR3	0.017	0.019	0.129	0.072	-0.216	-0.186	0.244	-0.256	0.056	-0.146	1.000	0.000
RR4	0.212	0.144	0.091	0.259	-0.034	0.329	-0.300	0.120	0.046	0.015	-0.036	1.000

The above result of table 2 represents that correlation coefficient analysis overall result shows that some positive and some negative relation between the dependent and independent variables.

5. Smart PLS Algorithm Model

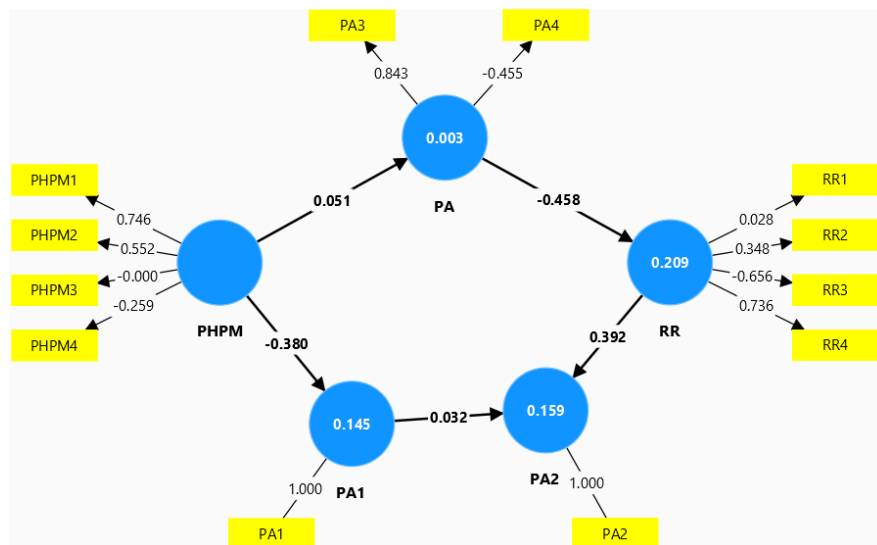


Figure 1: Smart PLS Algorithm Model

The following graph of figure 1 display that clever PLS Algorithm model in between PHPM, PA, and RR result reveals that PA exhibits -0.380 negative but its 38% significant association in between PHPM and PA1. The RR reveals that 2%, 34%, 65% also that 73% favourable and substantial association between them. the PA1 and PA2 demonstrates that positive and 3% meaningful correlation in between them. the RR demonstrates that 39% positive and significant association between them. PA demonstrates that 5% significant association with PHPM as correspondingly.

5.1. Pender's Health Promotion Model

The Health Promotion Model emphasises that every individual has distinct personal features and life experiences that impact their behaviour in the future. There are substantial motivational repercussions when picking variables for behaviourally specific information and impact. Nursing therapies can modify these features. Health-promoting conduct is the last aim of the Health Promotion Model. Throughout the developmental process, health-promoting interventions ought to result in increased health, functional capacity, and quality of life. Competing urgent demands and preferences also alter the ultimate behavioural demand, so derailing planned health-promoting activities. First published in 1982, Nola Pender's Health Promotion Model hypothesis was amended in 1996 and 2002. It has been utilised in nursing practice, teaching, and research. Nurses are in the greatest position to support patients in strengthening their well-being via self-care and healthy behaviours by employing this nursing theory and the corpus of information obtained from observation and study. It was the objective of the Health Promotion Model to function as a "complementary counterpart to models of health protection." It

grows to integrate activities that enhance health and may be employed all throughout one's life. In order to offer the foundation for behavioural treatment that supports wellbeing and a healthy lifestyle, it seeks to assist nurses learn about and grasp the fundamental elements that impact health behaviours. The health promotion paradigm created by Pender describes health as "a positive dynamic state, not merely the absence of disease." Enhancing a client's general well-being is the purpose of health promotion. It focusses attention to people's multifaceted personalities as they interact with their surroundings in an effort to enhance their health. Individual features and experiences, behavior-specific thoughts and emotions, and behavioural results.

5.2. Health-Promoting Behavior

An endpoint or action-outcome targeted at producing beneficial health outcomes, such as maximal wellbeing, personal happiness, and productive living, is known as a health-promoting habit. Key Premises of the Health Promotion Model: People actively endeavour to manage their own actions. • People interact with their environments in all of its biopsychosocial complexity, progressively altering both the environment and themselves over time. • The interpersonal environment, which impacts people throughout their lives, includes health professionals. • Behaviour changes need self-initiated reconfiguration of person-environment interaction patterns.

5.3. Properties

Beliefs, emotions, and the application of health-promoting activities are impacted by past conduct as well as inherited and acquired features. Individuals promise to take acts from which they intend to receive personally significant rewards. Both actual conduct and commitment to action, which mediates behaviour, can be impeded by perceived limits. The possibility of commitment to action and the actual performance of a behaviour is boosted when one feels capable or self-sufficient to carry it out. There are less perceived hurdles to certain health practices when self-efficacy is stronger. When one feels good about a behaviour, they view themselves as more capable, which could lead to greater positive affect. The likelihood of commitment and action is boosted when a conduct is related to favorable feelings or affect. When key persons set an example, anticipate the behaviour to happen, and give support and encouragement to enable the action, people are more likely to commit to and engage in health-promoting activities. Key interpersonal factors that can either improve or impair commitment to and engagement in health-promoting behaviour include families, peers, and medical professionals. External environmental factors can either improve or impair a person's commitment to or engagement in health-promoting practices. The likelihood that health-promoting behaviours will be sustained over time increases with the level of dedication to a particular course of action. When conflicting demands that

people have little control over need to be addressed right now, commitment to a plan of action is less likely to provide the required behavior. People may adjust their thoughts, emotions, and the social and physical environment to create incentives for healthy habits. • When other behaviours are more desirable and preferred than the target activity, commitment to a plan of action is less likely to yield the intended behaviour.

6. Discussion

Discuss about People in the intervention and control groups were shown to be at risk for CVD in the current investigation. By the sixth week, the evaluation of the participants' anthropometric alterations showed statistically significant decreases in every parameter. By the twentieth week, however, the control group's results—aside from the body fat ratio—started to increase, whereas the intervention group's values continued to decline. The ratio of body fat stayed essentially unchanged. At week 20, the intervention group's waist circumference measurements changed statistically significantly as a result of this decline. A number of studies involving physical activity training as part of primary and secondary protection, including the current study, found statistically significant decreases in weight, BMI, or body fat percentages in the treatment groups; however, the differences between the groups were not statistically significant. In research implementing the HPM, people with MI had statistically significant alterations in their waist circumferences after three months, but not in their BMI values. According to the current study, there was a statistically significant difference between the groups in terms of circumference of the waist measurements, and individuals in the intervention group saw a consistent drop in their weight, BMI, waist circumference, and body fat percentages over an interval of five months.

7. Conclusion

The women in the study decided to share their familial ties, and the amount of social support was high, despite the researchers' best attempts to collect accurate information from the participants by making sure the questionnaires were anonymous and confidential. Women also became more aware of the function that social support plays in their health as a consequence of the trainings they received and the intervention plans produced for one of the six intervention sessions. Key people in women's life got training materials and goods from the session, which can considerably enhance women's social support ratings. The experimental group's mean structure score of preceding health-related behaviour grew statistically considerably following the intervention. Research indicates that prior health-related activity and health-promoting behaviour are significantly correlated. The results of this study show that, in comparison to standard PA training, the HPM-based individualized PA counselling program significantly improved the development of healthy lifestyle

habits associated with functional capacity, PA, and exercise perceptions over a five-month period. Anthropometric measures that are thought to raise cardiac risk were also improved by the treatment, but to a lesser extent. Women's health-promoting actions are significantly predicted by their past health-related activity. The results of the current study demonstrated that while there was no significant difference in the two groups' levels of self-efficacy previous to the educational intervention, the experimental group's self-efficacy score increased, which was statistically significant. Numerous studies have also showed how useful educational programs are for developing self-efficacy for acts that enhance health. A person's self-efficacy is defined by how successfully they apply their talents to maintain or enhance their health, not by their ability.

8. Future Research

There are several opportunities for further research because the use of smart devices to influence and maintain healthy behaviour is a relatively new area of study. Working with other fields, like physiology or biokinetics, would be an especially interesting way to look at how smart devices affect health-related behaviour. Using the latest Fitbit devices to conduct the study is another suggestion. The Fitbit Aria 2 was created by Fitbit by the end of the study. Finally, longitudinal research should be conducted over a longer period of time (six months or more). In the future, it could be necessary to get less expensive equipment since the participants also wish to preserve the smart devices.

REFERENCES

- Chen, Y., Wei, Y., Lang, H., Xiao, T., Hua, Y., Li, L., Wang, J., Guo, H., & Ni, C. (2021). Effects of a goal-oriented intervention on self-management behaviors and self-perceived burden after acute stroke: a randomized controlled trial. *Frontiers in Neurology*, *12*, 650138.
- Çol, B. K., Tufan, G., & Kiliç, D. (2024). The evaluation of the effectiveness of a health promotion training on breast cancer survivors. *Journal of Education and Health Promotion*, *13*(1), 31.
- Hsia, H.-H., Tien, Y., Lin, Y.-C., & Huang, H.-P. (2024). Factors Influencing Health Promotion Lifestyle in Female Breast Cancer Survivors: The Role of Health Behavior Self-Efficacy and Associated Factors. *Seminars in Oncology Nursing*,
- Jalali, A., Ziapour, A., Ezzati, E., Kazemi, S., & Kazemina, M. (2024). The impact of training based on the Pender Health Promotion Model on self-efficacy: A systematic review and meta-analysis. *American Journal of Health Promotion*, *38*(7), 918-929.
- Kang, K.-A., Han, S. J., Chun, J., Kim, H.-Y., Oh, Y., & Yoon, H. (2023). Healthy lifestyle interventions for childhood and adolescent cancer survivors: a systematic review and meta-analysis. *Child Health Nursing Research*, *29*(2), 111.

- Karataş, T., & Polat, Ü. (2021). Effect of nurse-led program on the exercise behavior of coronary artery patients: Pender's Health Promotion Model. *Patient Education and Counseling*, 104(5), 1183-1192.
- Li, L., & Su, Y. (2024). Mediation Effects of Self-Care Self-Efficacy and Health-Promoting Behaviors on Fear of Cancer Recurrence and Posttraumatic Growth in Postoperative Patients with Cervical Cancer: A Cross-Sectional Study. *Asian Nursing Research*.
- Mbous, Y. P. V., Mohamed, R., & Bhandari, R. (2023). A decomposition analysis of racial disparities in physical activity among cancer survivors: National health interview survey 2009–2018. *Journal of Physical Activity and Health*, 20(8), 760-771.
- Park, K. A., Kim, S., Oh, E. G., Kim, H., Chang, H.-S., & Kim, S. H. (2022). Factors affecting the health-promoting behavior of thyroid cancer survivors: comparison by stage of cancer survivorship. *Supportive Care in Cancer*, 1-11.
- Peixoto, N. M. d. S. M., Peixoto, T. A. d. S. M., Pinto, C. A. S., & Santos, C. S. V. d. B. (2021). Nursing intervention focusing on health promotion behaviors in adult cancer patients: a scoping review. *Revista da Escola de Enfermagem da USP*, 55, e03673.
- Pinto, B. M., Dunsiger, S. I., Kindred, M. M., & Mitchell, S. (2023). Mediators of physical activity maintenance during a 12-month randomized controlled trial among breast Cancer survivors. *Journal of Behavioral Medicine*, 46(5), 745-756.
- Ren, Y., & Li, M. (2023). Intervention effect of Pender's model on mental health of patients with diabetes mellitus: A meta-analysis. *Canadian Journal of Diabetes*, 47(1), 94-101.
- Sabooteh, S., Feizi, A., Shekarchizadeh, P., Shahnazi, H., & Mostafavi, F. (2021). Physical activity determinants among students based on Pender's health promotion model constructs: a cross-sectional study using path analysis. *Proceedings of Singapore Healthcare*, 30(2), 145-151.
- Sadeghi, R., Arefi, Z., Shojaeizadeh, D., & Shaahmadi, F. (2022). The impact of educational intervention based on Pender's health promotion model on healthy lifestyle in women of reproductive age in Iran. *Journal of lifestyle medicine*, 12(2), 83.
- Shahroodi, M. V., Sany, S. B. T., Khaboshan, Z. H., Orooji, A., Esmaeily, H., Ferns, G., & Tajfard, M. (2022). Psychosocial determinants of changes in dietary behaviors among Iranian women: an application of the Pender's health promotion model. *Community Health Equity Research & Policy*, 42(2), 209-218.
- Syed Shamsuddin, S. M., Ahmad, N., Radi, M. F. M., & Ibrahim, R. (2024). The role of illness perception in the physical activity domain of health-promoting lifestyle among patients with non-communicable diseases: A systematic review. *PLoS one*, 19(11), e0311427.

- Tabriz, E. R., Ramezani, M., Heydari, A., & Aledavood, S. A. (2023). Health-promoting lifestyle among the survivors of colorectal cancer: An integrative review. *Journal of Caring Sciences*, 12(3), 201.
- Tabrizi, F. M., Rajabzadeh, H., & Eghtedar, S. (2020). Effects of the continuous care model on the health-promoting lifestyle in breast cancer survivors: a randomized clinical trial. *Holistic nursing practice*, 34(4), 221-233.
- Wu, J. R., Chan, F., & Ditchman, N. (2024). The health action process approach to promote regular physical activity among people with disabilities: A hierarchical regression analysis. *Rehabilitation Psychology*.
- Wu, J. R., Chan, F., Tansey, T., Ditchman, N., Berven, N., & Hoyt, W. (2024). Evaluating an Expanded Health Action Process Approach Model of Health Promotion to Predict Physical Activity Levels of Individuals With Chronic Health Conditions and Disabilities. *Rehabilitation Counseling Bulletin*, 00343552241268735.
- Yıldız, E., & Karagözoğlu, Ş. (2023). The Effects of a Web-Based Interactive Nurse Support Program Based on the Health Promotion Model on Healthy Living Behaviors and Self-Efficacy in Patients Who Regained Weight after Bariatric Surgery: A Randomized Controlled Trial. *Obesity Surgery*, 33(10), 3212-3222.
- Yu, C., Fang, G., Luqiang, Z., Siyue, L., Xingliang, Y., & Ji, Z. (2024). Construction of a comprehensive management plan for patients undergoing radical prostatectomy based on the pender model: A delphi method study.
- ZEnooZadEh, V., PAYANDEH, A., & SERAJI, M. (2023). Effect of Educational Intervention based on Pender's Health Promotion Model on Self-care Behaviours of Patients with Colorectal Cancer undergoing Chemotherapy: A Quasi-experimental Study. *Journal of Clinical & Diagnostic Research*, 17(9).
- Zhao, Z. (2024). THE APPLICATION OF DIGITAL TECHNOLOGY IN THE PROTECTION OF ANCIENT SPORTS HISTORICAL MATERIALS AND THE INHERITANCE OF SPORTS SPIRIT. *Revista multidisciplinar de las Ciencias del Deporte*, 24(98), 15-27.
- Zhong, L., Jin, Y., Gu, Y., He, W., Zheng, Y., Yang, T., Li, Y., Fu, L., Zhang, W., & Xu, Q. (2023). Clinically ill patients' experiences of early mobilisation after liver transplantation: a qualitative study using Pender's health promotion model. *International Journal of Rehabilitation Research*, 46(1), 92-97.
- Zhou, T., Cai, W., Wang, W., & Wang, L. (2024). Effects of Lifestyle Interventions on Health and Life Quality of Colorectal Cancer Survivors: A Systematic Review and Meta-analysis. *Cancer Nursing*, 47(2), E93-E107.