



Integration of Physical Wellness Program Among Staff Nurses of Level 2 Private Hospital in Iriga City, Camarines Sur

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ABSTRACT:

Rising rates of burnouts and secondary traumatic stress among nurses signal a crisis in healthcare. However, there is insufficient evidence on effective strategies to enhance nurse well-being and resilience. This study is a Quasi-experimental design as it involves a merger of a physical wellness program (intervention) among staff nurses of the level 2 private hospital to observe its effects on their well-being. The study involves comparing outcomes before and after the intervention. Thirty staff nurses (30) were included in the study (Zumba group). The training sessions were conducted after working hours, 30 minutes to one (1) hour, two times (2x) per week every Tuesday and Thursday for four (4) weeks. This is to determine the physical well-being, overall job satisfaction and productivity of the hospital staff nurses in the level 2 private hospital in Iriga City, Camarines Sur. Mean rating and comparison of means were used to determine the level of indicators on Knowledge, Practices and Attitude of the staff nurses on the wellness program, the Zumba Fitness. Paired sample T-test is another statistical method used in this study to compare the means before and after the wellness program and to determine if there is a significant difference between the means of two sets of paired data. The effect size of Physical Wellness Program among staff nurses in level 2 private hospital is based on Cohen's d method. Mean Knowledge in post-test and pre-test showed Cohen's d approximately 0.0769 indicating a small effect size which suggests that there is a minimal difference between the groups. Mean score on Practices in post-test and pre-test have a Cohen's d approximately 0.6454 which indicates a medium to large effect size. The mean attitude in post-test and pre-test have a Cohen's d of approximately 0.6736 indicating a medium to large effect size. Cohen's d is a statistical measure used to quantify the effect size which provides a clear understanding of the magnitude of change in knowledge, practices and attitudes of staff nurses resulting from the wellness program. Implementing a physical wellness program among staff nurses can lead to a healthier, happier and more engaged workforce, ultimately benefiting both the nurses and the organization as a whole.

Keywords: Nurse, Well-being, Secondary traumatic stress, Burnout, Resiliency, Ethical, Physical Wellness Program

Introduction:

One's health is one's wealth, and one's present health is the key to a bright and healthy future. Pangilinan, A.M. in 2019 of the Department of Health envisioned the Philippines to be among the healthiest country in the world. She further stated that "Together with this vision, everyone is entitled to be healthy and health-literate through the programs of the department since it strives to help everyone achieve this ambitious goal".

As highlighted by Porter-O'Grady, T. et al., in 2023, nurses are the most common profession to have a high risk of physical health problems. Physical injuries can happen as part of their job, and they often work long shifts in hostile environments that can lead to illness. They work in a demanding environment and have to deal with many difficult situations involving patient's care that can lead to burnout, stress, depression, and anxiety. This affects their emotional well-being and may make it difficult for them to focus on their important role as nurses.

Grabbe, L. et al., in 2020 state that rising rates of secondary traumatic stress and burnout among nurses signal a crisis in healthcare. There is a lack of evidence regarding effective interventions to improve nurse well-being and resiliency. Richards, E.A., et al., in 2016 cited that the physical wellness program among staff nurses is significant as it has a direct impact on their overall health and well-being. Implementing such programs can help improve the physical fitness and reduce stress levels among nurses. Ultimately this will lead to better patient care and job satisfaction. Research in this area can help identify effective strategies for implementing and sustaining physical wellness program tailored to the unique needs of staff nurses.

According to Lellamo, E. A., 2015, the present situation in the clinical practices in most hospitals in the Philippines, present great challenges and expectations for nurses to accomplish. Working in very busy large hospitals is considered tedious task. Even the most experienced nurses are confronted with complicated assignments that may threaten their wellness.

The researcher thinks and makes it priority to incorporate and implement a physical wellness program among staff nurses in the level 2 private hospital because this is essential to promote their health, reduce the stress, and enhance overall job satisfaction. As an alternative to the traditional approach to physical exercise, new kinds of organized physical activity have been developed and designed to engage large segments of the population through Zumba

fitness which is a popular dance workout program that combines Latin and International music dance movements. The program aims to explore the implementation and impact of physical wellness initiatives. Zumba fitness program is very popular and an effective physical activity to improve aerobic capacity. This research shows that nurses who engaged in wellness activities were more likely to have a better quality of life, mental well-being, less burnout, and higher job satisfaction.

Methodology:

STUDY DESIGN

This study is a Quasi-experimental design as it involves implanting a physical wellness program (intervention) among staff nurses to hospital to observe its effects on their well-being. Quasi-experimental designs are commonly used in such situations where random assignment of participants to treatment conditions is not feasible or ethical. The study involves comparing outcomes before and after the intervention. Thirty (30) staff nurses of a level 2 Private hospital were included in the study. The training sessions were conducted after working hours, 30 minutes to one (1) hour, two times (2x) per week every Tuesday and Thursday for four (4) weeks.

SAMPLING DESIGN

This study will employ the purposive sampling method to identify and recruit participants for this research that lack random assignment. Purposive sampling is a non-probability sampling technique used in quasi-experiment to select specific groups of people who possess characteristics or live experiences relevant to the social phenomenon being studied. Purposive sampling improves the rigor of the study and the reliability of the data and outcomes by better matching the sample to the research's goals and objectives (Campbell et al., 2020).

RESEARCH LOCALE

The research study was conducted in level 2 Private hospital in Iriga City, Camarines Sur, Philippines. This was chosen by the researcher because of the good hospital's reputation and the quality of care it provides. Patients from Iriga City and nearby municipalities in Rinconada area are being referred here for specialized treatments, surgeries, or complicated medical conditions that require a higher level of care. This hospital, compared to other hospitals in the locality, has a larger team of healthcare professionals with specialized training in various medical specialties.

SUBJECTS OR PARTICIPANTS

In this research study, the target participants were the Staff nurses of this level 2 Private hospital assigned in different areas. There were 30 staff nurses included in the study group. The Inclusion Criteria are: 1.) Staff nurses employed at this level 2 Private hospital in Iriga City 2.) Those willing to participate in the physical wellness program 3.) Females or Males 4.) With physical ability to engage in the Zumba fitness 5.) Willing to attend the scheduled Zumba sessions 6.) With consent to share relevant health information for program evaluation purposes. The Exclusion Criteria are: 1.) With medical conditions that may prevent participation in physical activities 2.) Pregnancy or recent childbirth 3.) Recent surgery or injury that limits physical activity 4.) Inability to commit to the program schedule due to work or personal reasons 5.) Refusal to provide consent for participation in the program. These criteria help ensure that the physical wellness program is tailored to the needs and capabilities of staff nurses while also promoting their safety and well-being.

RESEARCH INSTRUMENTS

To get the appropriate data needed, information were gathered through Survey Questionnaires to nurse participants before and after the physical wellness program. Researcher carefully designed the questionnaires with clear and concise wordings and typically consisting of closed-ended questions with partial modifications from published studies on Knowledge, Practices and Attitude among staff nurses with predefined response options. Questionnaires were validated by three (3) highly qualified professionals exposed in health. The questionnaire was composed of structured questions to assess the knowledge, practices and attitude of staff nurses included in the study. The choice of research instrument is important in ensuring the validity and reliability of the data collected.

DATA COLLECTION

The study was conducted from July 1-31, 2024 at level 2 Private hospital in Iriga City, Camarines Sur. Permission to conduct the study from the hospital was requested and coordinated with the Administration. Securing informed consent from all participants was the next step. The researcher asked the available day and time of the nurses and set a date to conduct the Zumba session. This was followed by determining the question contents, sequencing the questions and developing the final questionnaires. Three (3) experts were asked for validation of the questionnaires. Sending the questionnaires to participants (nurses) come after. This was superseded by gathering, analyzing and interpretation of results. Additionally, the documenting of data collection procedures in details for transparency and reproducibility in research.

DATA ANALYSIS

In Quasi-experimental research, the Weighted Mean is a statistical measure used to calculate the average set of values, where each value is assigned based on its importance or relevance. Mean rating and comparison of means were used to determine the level of indicators on knowledge, practices and attitude of the staff nurses on the wellness program, the Zumba Fitness. This allows researcher to give more emphasis to certain data points that may have a

greater impact on the overall analysis. Paired sample T-test is another statistical method used in this study to compare the means before and after the wellness program. It is commonly used in research to determine if there is a significant difference between the means of two sets of paired data.

Another statistical approach is the use of Cohen's *d*, a measure of effect size of an intervention based on knowledge, practices and attitude. It is commonly used in the context of comparing the means before and after the intervention. To interpret Cohen's *d*, the effect size can be categorized as: Small effect size ($d=0.2$) suggests that there is a minimal difference between the groups, Medium effect size ($d=0.5$) indicates a moderate difference, and the Large effect size ($d=0.8$) signifies a substantial difference.

Results

This chapter presented the results and discussion of data gathered which the main objective was to find out the physical well-being, overall job satisfaction and productivity of the hospital staff nurses in level 2 Private hospital in Iriga City, Camarines Sur.

Table 1. COMPARISON OF MEAN RATINGS ON KNOWLEDGE, PRACTICES AND ATTITUDE OF STAFF NURSES BEFORE AND AFTER THE PHYSICAL WELLNESS PROGRAM INTERVENTION

Paired Samples Statistics

	Mean	N	Std. Deviation	Std. Error Mean
Pair 1 total score on knowledge in post test	3.649	30	1.146	0.573
total score on knowledge in pre test	3.574	30	1.440	0.382
Pair 2 total score on practices in post test	3.855	30	0.277	0.160
Total score on practices in pre test	3.610	30	0.459	0.265
Pair 3 mean attitude in post test	4.444	30	0.394	0.227
mean on attitude in pre test	3.721	30	1.465	0.846

A level of knowledge, practices and attitude scale was set ranging from 1 – 5, with 1 being Strongly Disagree and 5 as Strongly Agree. The means were then compared with regards with the rating scale. On the first variable which is the Knowledge, the mean rating before the physical wellness program was 3.574 as compared to the mean rating after the wellness program which is 3.649. This means that there is a slight increase in the mean knowledge score from pre-test to the post-test, indicating an improvement in knowledge as a result of the physical wellness program. The participants showed agree on knowledge prior to wellness intervention indicating that they had a very strong knowledge/practice/positive attitude; consistently applies concept in practice.

With regards to Practices, the mean rating before the physical wellness program was 3.610 and the post-test mean was 3.855. There is a notable increase in practices after the program, indicating improved engagement or application of knowledge.

The next variable measured was the Attitude of the nurses before and after the physical wellness program. Prior to the intervention, the mean attitude of the nurses was 3.721 and after the intervention was 4.444. There is an increase in the mean attitude score from pre-test to post-test.

The rating scale was used to assess the impact of the physical wellness program on staff nurses. By collecting and analyzing the responses, we can identify areas of improvement and further tailor wellness initiatives to enhance knowledge, practices and attitudes among nursing staff.

Table 2. PAIRED T TEST ANALYSIS OF MEANS BEFORE AND AFTER THE PHYSICAL WELLNESS INTERVENTION

Paired Samples Test

	Paired Differences						T	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference					
				Lower	Upper				
Pair 1 total score on knowledge in post test - score in knowledge in pre test	0.075	3.561	0.650	1.402	-1.252	2.045	29	.000	
Pair 2 total score on practices in post test - total score on practices in pre test	0.245	0.9164	0.167	0.586	-0.096	2.045	29	.000	
Pair 3 mean attitude in post test - mean attitude in pre test	0.723	0.887	0.1619	1.054	0.392	2.045	29	.000	

The paired t-test was employed as the statistical method, with a significance level set at a p-value of <0.05 to formulate the null hypothesis. The p-values for each variable were calculated using the SPSS (Statistical Package for Social Sciences) software. The p-value for each of the three variables was 0.000, indicating a strong statistical basis for rejecting the null hypothesis. Consequently, with the null hypothesis rejected, the alternative hypothesis was accepted, leading to the conclusion that there was a statistically significant improvement in knowledge, practices, and attitudes as a result of the physical wellness program intervention.

Table 3. The Effect Size of Physical Wellness Program Among the Staff Nurses in the Level 2 Private Hospital in Iriga City, Camarines Sur

Cohen's d Result

	Mean	N	Std. Deviation	SD pooled	d
Pair 1 total score on Knowledge in post test	3.649	30	1.146		
Total score on Knowledge in pre test	3.574	30	0.7650	0.9742	0.0769
Part 2 total score on Practices in post test	3.855	30	0.2773	0.3796	0.6454
Total score on Practices in pre test	3.610	30	0.4598		
Part 3 Mean attitude in Post test	4.444	30	1.4657	1.0733	0.6736
Mean attitude in Pre test	3.721	30	0.3948		

The table 3 shows the effect size of Physical Wellness Program among staff nurses in level 2 private hospital in Iriga City, Camarines Sur. This was measured by Cohen's d using the formula $d = (M_1 - M_2) / SD_{pooled}$ where M_1 & M_2 are the means of the total scores on Knowledge, Practices and Attitude of staff nurses before and after the physical wellness program and SD_1 and SD_2 are the pooled standard deviation. Pair 1 the total score on Knowledge in post-test and pre-test showed Cohen's d approximately 0.0769 indicating a small effect size which suggests that there is a minimal difference between the groups. Pair 2 which is the total score on Practices in post-test and pre-test have a Cohen's d approximately 0.6454 which indicates a medium to large effect size. Pair 3 the mean attitude in post-test and pre-test have a Cohen's d of approximately 0.6736 indicating a medium to large effect size. Cohen's d Medium effect size indicates a moderate difference while the Large effect Cohen's d signifies a substantial difference. Cohen's d is a statistical measure used to quantify the effect size, which indicates the strength of the difference between two groups. In the context of evaluating a physical wellness program for staff nurses, assessing Cohen's d before and after the program's integration is crucial for several reasons. One is the effect size measurement which provides a clear understanding on the magnitude of change in knowledge, practices and attitudes of staff nurses resulting from the wellness program. A larger Cohen's d value indicates a more substantial effect, helping stakeholders gauge the program's effectiveness. By analyzing the effect size, healthcare administrators can make decisions about the continuation, modification, or expansion of the wellness program. Cohen's d allows for comparisons with other studies or programs. It can help contextualize the results and determine whether the observed changes are consistent with nursing practice and wellness initiatives. While statistical significance (p-value) indicates whether an effect exists, Cohen's d emphasizes practical significance. This distinction is vital in healthcare settings, where the real-world impact on staff well-being and patient care is paramount. By measuring

the effect size before and after the program, the administration can identify specific areas of improvement in knowledge, practices and attitudes. In this study, the result in the knowledge showed a small effect size. This feedback loop can inform ongoing training for more development efforts and improvement in the area of knowledge to meet the needs of staff nurses effectively. In summary, utilizing Cohen's *d* to assess the impact of a physical wellness program on staff nurses is essential for understanding the program's effectiveness, guiding decision-making and fostering continuous improvement in nursing practices and overall staff well-being.

Based on the findings, the researcher is proposing these enhancement plans, a comprehensive and sustainable physical wellness program that supports the health and fitness goals of staff nurses after Zumba sessions.

Enhancement Plans

1. Diversify Fitness Activities	Offer a variety of physical activities beyond Zumba, such as yoga or strength training, to cater to different preferences and fitness levels among staff nurses.
2. Incorporate Education and Training	Provide workshops or seminar on nutrition, proper exercise techniques, and stress management to enhance the overall wellness program and empower nurses to make healthier lifestyle choices.
3. Establish Accountability and Support Systems	Implement tracking mechanisms, goal-setting tools, and peer support groups to help nurses stay motivated and committed to their fitness goals.
4. Schedule Regular Wellness Check-Ins	Conduct periodic health assessments, fitness evaluations, and progress reviews to monitor the impact of the wellness program and make necessary adjustments based on feedback.
5. Promote Work-Life Balance	Encourage nurses to prioritize self-care, set boundaries between work and personal life, and allocate time for relaxation and rejuvenation to maintain overall well-being.

Conclusion

The integration of a physical wellness program among staff nurses can lead to numerous benefits, including improved health outcomes, enhanced job satisfaction, and better patient care. It is essential to approach this integration thoughtfully, ensuring that the program is inclusive, flexible and continuously evaluated for effectiveness.

1. Engaging in regular physical wellness program exemplified by Zumba can improve overall health and well-being by increasing strength, flexibility and endurance.
2. Regular physical activity can reduce stress, prevent burnout, and enhance mental health.
3. It can also help in reducing the risk of chronic diseases such as heart disease and diabetes. Furthermore, it can boost energy levels, enhance mood and promote better sleep.
4. Nurses who participate in wellness programs may experience higher job satisfaction.
5. Physical wellness can lead to increased energy levels, improved focus, and reduced absenteeism on the part of the nurses, all of which contribute to a more effective healthcare environment.
6. Group activities within a wellness program can foster teamwork and camaraderie among staff nurses. This can enhance communication and collaboration which are essential in a healthcare setting.
7. By promoting physical wellness, healthcare organizations may see a reduction in healthcare costs associated with chronic disease and injuries among staff.
8. Offering a variety of activities and flexible scheduling can increase participation and effectiveness.
9. Gathering feedback from participants can help refine and improve the program over time.
10. Successful integration of a physical wellness program requires strong support from management. It sets a positive example and encourages participation among staff.

RECOMMENDATIONS

Implementing a physical wellness program for staff nurses in academic settings, the nursing industry and research environments can significantly enhance their overall well-being and job performance. Here are some tailored recommendations for each group:

1. FOR THE NURSING PROFESSION

- a.) Curriculum Integration: Incorporate physical wellness topics into the nursing curriculum, emphasizing the importance of self-care and physical health in nursing practice.
- b.) Wellness workshops: Organize regular workshops focusing on stress management, nutrition, and physical fitness tailored for nursing students and faculty.
- c.) Physical Activity Incentives: Encourage participation in physical activities by offering incentives such as credits or recognition for attending fitness classes or participating in sports events.
- d.) Access to Facilities: Ensure that nursing schools provide access to fitness facilities or partnerships with local gyms for students and staff.

2. FOR NURSING INDUSTRY (Hospitals and Healthcare Settings)

- a.) Flexible Scheduling: Implement flexible work schedules that allow nurses to engage in physical activities such as exercise classes or walking groups during breaks.
- b.) On site Wellness Program: Develop on-site wellness program that include fitness classes, yoga sessions or walking challenges to promote physical activity during work hours.
- c.) Health Screenings: Offer regular health screenings and assessments to monitor staff health and provide personalized wellness plan
- d.) Support groups: Create support groups focused on physical wellness, where nurses can share experiences and motivate each other to maintain healthy lifestyles.

3. FOR THE FUTURE RESEARCHERS

- a.) Research on Wellness: Encourage research initiatives that explore the impact of physical wellness program on nurse performance, job satisfaction and patient care outcomes.
- b.) Collaboration with Health Experts: Collaborate with health and wellness experts to develop evidence - based physical wellness program tailored for nursing staff.
- c.) Dissemination of Findings: Share research findings through conferences, journals and workshops to promote best practices in physical wellness among nursing professionals.
- e.) Funding Opportunities: Seek funding for studies that assess the effectiveness of physical wellness programs and their impact on nurse retention and health.

GENERAL RECOMMENDATIONS:

- a.) Holistic Approach: Ensure that wellness programs address not only physical health but also mental and emotional well-being.
- b.) Feedback Mechanism: Establish a feedback mechanism to continuously improve the wellness program based on staff input and participation rates.
- c.) Community Engagement: Foster a sense of community by organizing a team-building activities that promote physical wellness such as charity runs or group hikes

References:

1. Porter-O'Grady, T., Start, R.E., & Hancock, B. (2023). *Professional governance for nursing. The framework for accountability engagement, and excellence*. Jones & Barlett Publishers.
2. Richards, E. A., & Cai, Y. (2016). Physical Activity Outcomes of Nurse-Delivered Lifestyle Interventions. *Home healthcare now*, 34(2), 93–101. <https://doi.org/10.1097/NHH.0000000000000334>
3. Dunn, A. L., Andersen, R. E., & Jakicic, J. M. (1998). Lifestyle physical activity interventions. History, short- and long-term effects, and recommendations. *American journal of preventive medicine*, 15(4), 398–412. [https://doi.org/10.1016/s0749-3797\(98\)00084-1](https://doi.org/10.1016/s0749-3797(98)00084-1)
4. Dunn, A. L., Andersen, R. E., & Jakicic, J. M. (1998). Lifestyle physical activity interventions. History, short- and long-term effects, and recommendations. *American journal of preventive medicine*, 15(4), 398–412. [https://doi.org/10.1016/s0749-3797\(98\)00084-1](https://doi.org/10.1016/s0749-3797(98)00084-1)
5. Vendramin, B., Bergamin, M., Gobbo, S., Cugusi, L., Duregon, F., Bullo, V., Zaccaria, M.,

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- Neunhaeuserer, D., & Ermolao, A. (2016). Health Benefits of Zumba Fitness Training: A Systematic Review. *PM & R : the journal of injury, function, and rehabilitation*, 8(12), 1181–1200. <https://doi.org/10.1016/j.pmrj.2016.06.010>
6. Vendramin, B., Bergamin, M., Gobbo, S., Cugusi, L., Duregon, F., Bullo, V., Zaccaria, M., Neunhaeuserer, D., & Ermolao, A. (2016). Health Benefits of Zumba Fitness Training: A Systematic Review. *PM & R : the journal of injury, function, and rehabilitation*, 8(12), 1181–1200. <https://doi.org/10.1016/j.pmrj.2016.06.010>
7. Grabbe, L., Higgins, M. K., Baird, M., Craven, P. A., & San Fratello, S. (2020). The Community Resiliency Model to promote nurse well-being. *Nursing outlook*, 68(3), 324-336. <https://doi.org/10.1016/j.outlook.2019.11.0>
8. Nnadozie, U. U., Anekwu, E. M., Asouzu, N. C., Maduba, C. C., Madu, C. I., Nnadozie, A. A., Anekwu, E. O., Asouzu, N. C., Odo, C., & Unigwe, U. S. D. (2023). Physical Activity among Healthcare Workers in a Major Tertiary Hospital, Southeast Nigeria. *West African journal of medicine*, 40(1), 72–77.
9. Flanigan, A., & Salm Ward, T. (2017). Evidence and Feasibility of Implementing an Integrated Wellness Program in Northeast Georgia. *Health & social work*, 42(3), 143 – 150. <https://doi.org/10.1093/hsw/hix021>
10. Teixeira, P. J., Carraça, E. V., Markland, D., Silva, M. N., & Ryan, R. M. (2012). Exercise, physical activity, and self-determination theory: a systematic review. *The international journal of behavioral nutrition and physical activity*, 9, 78. <https://doi.org/10.1186/1479-5868-9-78>
11. Ryan, R.M.; Deci, E.L. (20000). “Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being”.
12. Street, T. D., Lacey, S. J., & Langdon, R. R. (2017). Gaming Your Way to Health: A Systematic Review of Exergaming Programs to Increase Health and Exercise Behaviors in Adults. *Games for health journal*, 6(3), 136–146. <https://doi.org/10.1089/g4h.2016.010>
13. *Facts, Stats And Socio Economic Profile*. (n.d.). Gov.ph. <https://iriga.gov.ph/facts-stats-and-demography/>