



De La Salle University - Dasmariñas

The Relationship of Physical Exertion in the Quality of Sleep and Life Satisfaction among Hypertensive Senior Citizens in Cavite

A Title Proposal

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Marvicris A. Detruz

Maila Joie S. Laudato

Ms. Rowena Heradura



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**ABSTRACT**

Name of the Institution: De La Salle University – Dasmariñas

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Authors: Marvicris A. Detruz
Maila Joie S. Laudato

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Objectives of the Study

A. General

To know the effects of physical exertion to the quality of sleep and life satisfaction among hypertensive senior citizens in Cavite.

B. Specific

1. To determine the quality of sleep senior citizen respondents experience according to:
 - 1.1 Subject sleep quality,
 - 1.2 Sleep latency,
 - 1.3. Sleep duration,
 - 1.4. Habitual sleep efficiency,
 - 1.5. Sleep disturbance,
 - 1.6. Use of sleeping medication, and
 - 1.7. Daytime dysfunction.
2. To know the level of life satisfaction of the senior citizen respondents?
3. To determine if there is a significant relationship between physical exertion and life satisfaction among senior citizens respondents?
4. To know if there is a significant relationship between physical exertion and quality of sleep among senior citizens respondents?



5. To determine if there is a significant relationship between life satisfaction and quality of sleep among senior citizens respondents?

Scope and Limitation

This study focused mainly on senior citizens aged 60 and beyond participating in a physical exertion (low intensity aerobic exercise and sedentary lifestyle) in Cavite. There were 120 respondents gathered to be part of the study. 60 respondents were part of Group A who engaged low intensity aerobic exercise within 3 months while the other half of the respondents were part of Group B who engaged in a sedentary lifestyle. It further aimed to determine the quality of sleep and the life satisfaction of the hypertensive senior citizens of Cavite.

This study further aimed to determine the present level of life satisfaction of senior citizens and how this affects the quality of sleep through the use of Pittsburgh Sleep Quality Index Questionnaire and Satisfaction with life scale questionnaire. The respondents of the study were selected through purposive sampling. Distribution of surveys and standardized tests was done personally. It did not aim to compare the two dependent variables, instead it aimed to know if there was significant relationship between the two variables.



Research Procedure

Phase I: Social Preparation

In preparation phase which started in October 2013, the researchers did an ocular visit to Dasmariñas, Imus, Bacoor and Silang to find out if there were senior citizen who were engaged in low intensity aerobic exercise. The respondents had ages from 60 years old and beyond and they were engaging in low-intensity aerobics exercise for more than 3 months. The researchers sent a letter of permission to Municipal Officers to allow the researchers to gather the necessary information needed. The researchers presented the approved letter to all the participants of the research and proceeded to the next phase.

Phase II: Actual Data Gathering

The researchers did the actual data gathering in the month of November 2013. Having in hand their standardized research tool, sphygmomanometer, together with the letter for the respondents and the letter for the Municipal offices asking for permission to gather the data, researchers did on the same day the actual data gathering. Before distributing the questionnaires to the respondents, the researchers explained the purpose of the study. The actual answering of the tool was done by most of the respondents while some of the respondents were guided by the researchers in answering the second part of the



tool. The second part was comprised of nineteen declarative statements. The research tool was retrieved upon house distribution by the researchers and completion by the respondents. Characteristically, the Municipalities had enough number of participants which facilitated the researchers to complete the desired number of respondents. A total of 120 respondents were gathered in this study.

Phase III: Scoring and Interpretation

After the data gathering, all the data from the two instruments were tallied accordingly, including their demographic profile together with the two research instruments namely Pittsburgh Sleep Quality Index and Satisfaction with Life Scale Questionnaire.

Conclusion

The following were drawn from the findings:

1. The researchers concluded that the level of quality of sleep among senior citizens in Cavite is fairly good in terms of subjective sleep quality, sleep latency, sleep duration, sleep disturbance, and daytime dysfunction. As people age, they more often complain about sleep disturbances like difficulty initiating and maintaining sleep, waking up too early, and excessive daytime tiredness compared with young adults. They are more easily aroused from night time sleep by auditory stimuli or things they hear suggesting that they



may be more sensitive to environmental stimuli. One of the main factors that may affect the sleep quality of the senior citizen is due to lack of sufficient physical activity that burdens them and some of them have poor quality of sleep maybe due to an underlying medical condition.

2. The researchers concluded that senior citizens who engaged in low-intensity aerobics exercise were extremely satisfied with their life satisfaction while the level of life satisfaction of senior citizens who engaged in a sedentary lifestyle fell under the category of satisfied. Elderly tend to slow down their productivity and enjoy their life as a retired person. The use of life satisfaction research as a tool in identifying various physical exertions has the potential to increase one's level of life satisfaction and enhance the quality of life of older adults. The increasing population of older adults has generated a need to investigate this area so that the elderly population can be responsive to this growing segment of people with increasing physical health awareness.
3. The researchers concluded that there is significant relationship between low intensity aerobic exercise and life satisfaction. Physical health is an influencing factor to elderly individuals' life; thus, they engage in activities such as low-intensity aerobic exercise. The healthier and engaged an individual is in body exercising routines the better their coping in life is leading to increased satisfaction because it is found out that it diminishes the



negative effects of aging. Continued participation in exercise is a positive indicator of life satisfaction and cessation from participation in exercise might indicate declining physical health and life satisfaction.

4. The researchers concluded that there is significant relationship between quality of sleep and low intensity aerobic exercise. This can lead to good circadian rhythm or sleep-wake cycle functioning; thus, there is a balance with external demands and circadian rhythm. There is congruency with the timing of sleep so the individual is able to sleep or remain awake during socially acceptable hours as a result of regular exercise routine. Despite of environmental cues resulting in varying sleep problems, respondents are still able to cope and able to sleep when desired.
5. The researchers concluded that there is significant relationship between quality of sleep and low intensity aerobic exercise. Physical exertion is of great help when performed regularly as part of routine activities especially to the aging population. Exercise and sleep have a relationship because as the body works out, it gives fatigue to the body and mind, thus; the participants tend to sleep more soundly when compared to those having a sedentary life style with less bodily activities.



Recommendations

On the basis of the foregoing findings and conclusions, the following recommendations are proposed:

1. It is recommended for the senior citizen to undergo low intensity aerobic exercise because it has several benefits for them. First, it helps to improve their cardiovascular system. It is indicated that exercise decreases blood pressure given that they are all hypertensive. But they are only recommended to exercise for only 30 minutes to one hour per day to prevent dizziness. Second, it will help to improve the quality of their sleeps. They should engage in exercise because it increases deep sleep and it also improves memory functioning.
2. It is recommended for the relatives of senior citizens to convince them to participate in any exercise like low intensity aerobic exercise so that it may help to improve their health especially that they are senior and hypertensive. They should get (1) medical clearance from the doctor before starting an exercise program, especially if the elderly is having a pre-existing medical condition because there are activities that need to be avoided; (2) Consider health concerns. Keep in mind how your ongoing health problems affect your workouts. There is a decline in power in their bodies if something feels wrong, such as sharp pain or unusual shortness of breath, simply stop or they



may need to scale back or try another activity; (3) Starting slow should be done because their bodies haven't been active in a while. It can be harmful to go all out. Instead, build up an exercise program little by little and try spacing workouts in ten-minute increments twice a day or try just one class each week. Prevent crash-and-burn fatigue by warming up, cooling down, and keeping water handy; (4) Commit to an exercise schedule for at least 3 or 4 weeks so that it becomes a habit and force to stick with it; and (5) Recognizing problems is also important to monitor because exercise should never hurt. One should stop exercising immediately and call your doctor if you feel dizzy or short of breath, develop chest pain or pressure, break out in a cold sweat, or experience pain. Also, stop if a joint is red, swollen, or tender to touch especially because the participants were all senior citizens.

1. It is recommended for the future researchers to dig deeper in the following aspects: (1) the researchers must consider other health conditions or factors that may affect the sleep quality of the senior citizens and include continuous monitoring of their pre-exercise and post-exercise blood pressure to ensure that the effects of having enough hours of sleep during the night will help readjust the elderly populations' inner clock, specifically the substance melatonin, a naturally occurring substance that promotes deep sleep that might be depleted due to several effects of anti-hypertensive medications. (2) It is also recommended that they must monitor the respondents if they really



engage in low intensity aerobic exercise as part of their routine physical exertion or not. It should be directly observed and documented to ensure compliance and monitor the number of hours and the weight, duration, and environmental condition during the sessions of observed physical fitness sessions. (3) It is recommended for them to choose the respondents that engage in low intensity aerobic exercise for about 6 months and above without skipping or interruptions to see the maximum effects of physical exertion on the level of sleep of the senior citizen respondents.

(4) It is also recommended that they must know the body weight of the respondents because it is one of the factors that affect the sleep of senior citizens. Excess weight, as well as underweight, has to be screened because fat deposits around the upper airway may obstruct breathing. However, not everyone who has sleep apnea is overweight because thin people can develop this disorder too. (5) It is recommended that they must include more respondents so that their study may become more valid to know the real effect of low intensity aerobic exercise in the sleep quality and life satisfaction of senior citizen through these health-promoting activities during leisure time. Exercise, especially, has a significant influence on life satisfaction as a feeling of physical fitness feeling is regarded as synonymous with good health.