Spring 2021

A Comparison of Health Habits Between Nursing and Non Nursing Majors

Reilly K. Gilmour
University of New Hampshire, Durham

Follow this and additional works at: https://scholars.unh.edu/honors

 Part of the Health Services Research Commons, Other Mental and Social Health Commons, Other Public Health Commons, and the Public Health Education and Promotion Commons

A Comparison of Health Habits Between Nursing and Non Nursing Majors

Reilly Gilmour

May 2021

Senior Undergraduate Honors Nursing Student

University of New Hampshire

Eileen Hollis, MSN, RN-BC, CNL

Faculty Member

Department of Nursing, University of New Hampshire

Introduction

Nursing students in countries worldwide have reported increased stress and psychological distress (Tada, 2017). Furthermore, "more than half of practicing nurses have suboptimal physical or mental health" (Sittig et al., 2020). The impaired health status of the majority of nurses has been linked to a 76% increased risk of making medical errors" (Sittig et al., 2020). These statistics prove the importance of improving health habits among nursing students prior to joining the workforce. This study will delve into the differences in health habits between nursing and non-nursing majors in order to decipher the need of promoting health in future nurses.

Quality of life, QOL, is defined as "an individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns" (*The World Health Organization Quality of Life (WHOQOL)*, n.d.). According to a study "nursing students represent a group of individuals who are constantly compromising their QOL" (Nova Laranjeiras City Hall et al., 2016). Due to the overwhelming course load, there is little time for self-care for these students (Nova Laranjeiras City Hall et al., 2016). Also, "93.8% of [nursing] students reported not being fully satisfied with their sleep", which explains the "compromised quality of rest and the level of energy" resulting in "interference in the performance of daily activities" (Nova Laranjeiras City Hall et al., 2016). Additional studies have also determined that "nursing students have low sleep quality" (YILMAZ et al., 2017). Sleep is directly linked "to health and quality of life, [and] is a basic need for a human being to continue his bio-psycho-social and cultural functions" and also has direct effects towards "behavioral and emotional problems" (YILMAZ et al., 2017).

In order to gather data for this study, the Health Promoting Lifestyle Profile II was used. The Health Promoting Lifestyle Profile II is a 52 item rating scale is "composed of a total scale and six subscales to measure behaviors in the theorized dimensions of health-promoting lifestyle: spiritual growth, interpersonal relations, nutrition, physical activity, health responsibility, and stress management" (Walker & Hill-Polerecky, 1987). The first subscale consist of spiritual growth which "focuses on the development of inner resources and is achieved through transcending, connecting, and developing" (Walker & Hill-Polerecky, 1987). The second dimension rates interpersonal relations, defined by, "utilizing communication to achieve a sense of intimacy and closeness within meaningful, rather than more casual, relationships with others" (Walker & Hill-Polerecky, 1987). The third subsection focuses on nutrition and "involves knowledgeable selection and consumption of foods essential for sustenance, health, and well-being" (Walker & Hill-Polerecky, 1987). Physical activity is the fourth section and "involves regular participation in light, moderate, and/or vigorous activity" (Walker & Hill-Polerecky, 1987). The fifth subsection concentrates on health responsibility, meaning "accountability for one's own well-being" (Walker & Hill-Polerecky, 1987). Finally, the sixth subscale is stress management which "entails the identification and mobilization of psychological and physical resources to effectively control or reduce tension" (Walker & Hill-Polerecky, 1987). The Health Promoting Lifestyle Profile II is a tool that was developed to "enable researchers to measure patterns of health-promoting behavior" (Walker & Hill-Polerecky, 1987). The rating scale has been approved for usage for "non-commercial data collection purposes such as research or evaluation projects provided that content is not altered in any way and the copyright/ permission statement at the end is retained" (Walker & Hill-Polerecky, 1987).

In terms of the scoring of the Health Promoting Lifestyle Profile II, or HPLP-II, a mean score was calculated upon completion of the questionnaire. The items are scored according to the following; "Never (N)= 1, Sometimes (S)=2, Often (O)=3, Routinely (R)=4" (Walker & Hill-Polerecky, 1987). The HPLP-II "focuses on self-initiated actions and perceptions that serve to maintain or enhance the level of wellness" (Kuan et al., 2019). Furthermore, the HPLP-II, "is a widely-used instrument for evaluation of health behaviour which has been validated in multiple studies" (Kuan et al., 2019). This tool has been translated in numerous languages including the following; Chinese, Spanish, Japanese, Italian, Turkish and Arabic (Kuan et al., 2019). The English version is "reliable, valid and stable across time based on previous studies" (Kuan et al., 2019). The viability of the HPLP-II is the reason why this tool will be used to conduct research and gather needed data.

Methods and Materials

The research was conducted online via Facebook groups. The Qualtrics platform was used to host the questionnaire and will be posted on the following Facebook groups; "NEW University of New Hampshire (UNH) Class of 2021", "University of New Hampshire (UNH) Class of 2023", "University of New Hampshire Class of 2024 (Official)" and "UNH Student Nursing Organization". The utilization of Facebook allowed for a large sample size and data collection from both nursing and non-nursing students. The researcher plans to obtain data from 40-150 participants. There will be a minimum 20 participants per group; nursing and non-nursing majors, in order to obtain a decent sample size and therefore more data to analyze. Approval from the University of New Hampshire's IRB was secured before posting the

questionnaire on the Facebook groups. See Appendix A for Facebook post describing the study and participation expectations.

    This study will be targeted the students at the University of New Hampshire. The research is looking for data from both nursing and non-nursing majors. Prior to beginning the survey the participant will be asked a few demographic questions. Participants were asked to select what age range most accurately describes them and then also if they are a nursing or non-nursing major. The researcher is aware that these questions have the possibility of revealing personal identity and will plan on not reporting results with less than 10 responses. Results reported did not to reveal any participants individual identity. In order to participate, individuals were English speaking undergraduate students at the University of New Hampshire. Participants received a score from 52-208 based on their replies to the questionnaire. When the health statements appeared on the survey there were four listed answers to choose from, never, sometimes, often and routinely. The data was then converted into numerical answers. The never was scored a 1, the sometimes a 2, the often a 3 and the routinely a 4, the highest score meaning you routinely participate in all 52 of the health statements given in the questionnaire. The data collection was deemed a qualitative descriptive study due to the quantifiable information being collected used for statistical analysis. Two sample T test were then calculated in order to determine the significance, if any between the two groups for each of the 6 subsections.   At the end of the survey the researcher will provide The University of New Hampshire's health and wellness contact information for a support resource. There is no monetary or other type of compensation for completing the questionnaire.

Results

Out of the 152 total responses, 96 were included in the study because they were 100% completed. Of those 96 responses, 23 participants or 24% were nursing majors and 73 participants or 76% were non-nursing majors. In addition, 28 participants were in the 18-19 age group, 51 participants were in the 20-21 age group and 17 participants were in the 22-23 age group.

Table 1.

Table 1

Health Behavior Category Differences Between Nursing and Non-Nursing Students (N=96)

	Nursing (n= 23) mean	Non-Nursing (n=73) mean	p
Health Responsibility	2.26	2.19	0.745
Nutrition	2.68	2.45	0.24
Physical Activity	2.47	2.72	0.20
Spiritual Growth	2.88	3.08	0.31
Interpersonal Relations	3.43	3.11	0.012*
Stress Management	2.49	2.44	0.79

*indicates p <0.05

The results are shown on this table. The mean scores for each subcategory for each group were calculated, and then a t test was run in order to determine the p values for each subcategory. In order to be deemed significant, the p value must be less than 0.05. Therefore, the only subcategory that yielded significant data was the interpersonal relations category.

Table 2.

Subcategory	Nursing Major Score Mean	Non-nursing Major Score Mean
1.Health Responsibility	**2.56**	2.19
2. Nutrition	**2.67**	2.45
3. Physical Activity	**2.72**	2.47
4. Spiritual Growth	**3.08**	2.88
5. Interpersonal Relations	**3.43**	3.11
6. Stress Management	**2.49**	2.44

Overall, nursing majors had higher means when calculating the scores out for each subcategory. As seen in the table above, the means for the nursing major participants was higher in all six categories when compared to the means of the non-nursing participants scores.

Table 3.

Interpersonal Relation Statement	Nursing Major Mean (n=23)	Non-nursing Major Mean (n=73)
Discuss my problems and concerns with people close to me.	3.13	2.86
Spend time with close friends.	3.61	3.22
Find ways to meet my needs for intimacy.	3.17	2.51
Find it easy to show concern, love and warmth to others.	3.52	3.32
Maintain meaningful and fulfilling relationships with others.	3.61	3.34
Praise other people easily for their achievements.	3.65	3.56
Settle conflicts with others through discussion and compromise.	3.26	3.18
Touch and am touched by people I care about.	3.48	3.12

This table displays each individual health statement from the interpersonal relations subcategory of the HPLP II, which was the only category deemed to yield significant data. The means highlighted in red show the questions that showed the highest variability between the nursing and non-nursing majors mean scores for each health statement. For example, for the "find ways to meet my needs for intimacy", the nursing majors scored a 3.17 mean score while the non-nursing majors got a 2.51 mean score, which is a 0.66 difference between the two values.

Discussion

Based on the results after completing a statistical analysis, the interpersonal relations section yielded significant data. The results illustrated a mean of 3.34 for the nursing majors and a 3.11 mean for the non-nursing majors. The t test ran for this subcategory then showed a p value that was deemed significant because it was less than 0.05. Based on the HPLP II, the interpersonal relations category can be defined as "utilizing communication to achieve a sense of intimacy and closeness within meaningful, rather than more casual, relationships with others" (Walker & Hill-Polerecky, 1987). Therefore, based on this definition and the reported results, this study shows how nursing majors feel they are able to form meaningful relationships more often than non-nursing majors. Overall, nursing majors had higher mean scores in each of the 6 subcategories. I believe this data can tell us that the stress placed on nursing students is not affecting their health habits as badly when compared to the health habits of non-nursing majors. I think it is still important for us to all continue to practice our personal health habits during school and later in life during any career we pursue.

Other similar studies have also shown how nursing students tend to score higher on health behavior related research. A study called "Health Habits of Nursing Versus Non-nursing

Majors: A Longitudinal Study" by Miss Cathay Shriver followed a similar format using a

different tool called the health habits inventory. This study was completed in 2000, therefore I

think it was important to redesign and complete a similar study using a new measurement tool to

compare the data. I believe the results are linked to nursing students having a passion for health

and science, and therefore are compelled to take care of their health in all aspects because they

are aware of the importance of doing so while also aware of the consequences that can follow

negative health habits.

Regarding the strengths and weaknesses of the study, there were multiple. One of the

strengths of the study was the large number of participants. The researcher planned for 40-150

participants and ended up with 152 total responses, 96 of those were used in the data analyzation.

The larger the population size, the more accurate the mean values are. Another strength of the

study was that significant data was founded, meaning the data was real and not caused by

chance. In terms of weaknesses, one can be considered the narrow participant population. The

study only used participants from a single university in a single state. Another weakness in the

study could be false answers in the survey. Due to the survey being approximately 52 questions

and taking significant time, participants could have provided hurried or false answers, which

could have skewed the data. In regards of bias, the researcher herself is a nursing major and

therefore could have been unconsciously bias towards the nursing group of participants. The

researcher did acknowledge this fact and continually ensured personal bias was not included in

the data collection or discussion.

In terms of recommendations for future research, there are some key aspects I would try

to implement. I believe use of a 1-7 scale would help participants decipher more accurately as to

how frequently they complete the health statements in the HPLP II. I believe there could be confusion around deciphering between often and sometimes, therefore creating a "how likely are you to" format and then provide a scale of 1-7 would possibly yield more accurate responses. I also think repeating the study in other universities between nursing and non-nursing majors would be beneficial to determine accuracy of the study. Third, If I were to repeat this study, I would try to gain more responses, in order to yield even more accurate data. I also think it would be interesting to further this research by completing a t-test for each of the individual 52 items to determine the significance of each statement between the nursing and non-nursing majors. This study could also be repeated between students in two types of major groups, for example nursing majors versus occupational therapy majors.

The significance of the findings of this research study could have implications on the health of all undergraduate students university wide. I believe the health habits of undergraduate students needs to be taken seriously to ensure all students are learning, growing and thriving in an environment that is beneficial for their education. This study shows how other majors, score lower on all health categories when compared to nursing majors. More education regarding the importance of all aspects of health may be needed to boost the overall health habits of all undergraduate students.

Sources

Kuan, G., Kueh, Y. C., Abdullah, N., & Tai, E. L. M. (2019). Psychometric properties of the health-promoting lifestyle profile II: Cross-cultural validation of the Malay language version. *BMC Public Health*, *19*(1), 751. https://doi.org/10.1186/s12889-019-7109-2

Nova Laranjeiras City Hall, Moritz, A. R., Pereira, E. M., Universidade Estadual do Centro Oeste, Borba, K. P. de, Universidade Estadual do Centro Oeste, Clapis, M. J., Escola de Enfermagem de Ribeirão Preto, Gevert, V. G., Universidade Estadual do Centro Oeste, Mantovani, M. de F., & Universidade Federal do Paraná. (2016). Quality of life of undergraduate nursing students at a Brazilian public university. *Investigación y Educación En Enfermería*, *34*(3), 564–572. https://doi.org/10.17533/udea.iee.v34n3a16

Shriver, C. (2000). Health habits of nursing versus non-nursing students: a longitudinal study. *The Journal of Nursing Education.*, *39*(7), 308–31

Sittig, S., Hauff, C., Graves, R. J., Williams, S. G., McDermott, R. C., Fruh, S., Hall, H., Campbell, M., Swanzy, D., Wright, T., & Hudson, G. M. (2020). Characteristics of and Factors Influencing College Nursing Students' Willingness to Utilize mHealth for Health Promotion: *CIN: Computers, Informatics, Nursing*, *38*(5), 246–255. https://doi.org/10.1097/CIN.0000000000000600

Tada, A. (2017). The Associations among Psychological Distress, Coping Style, and Health Habits in Japanese Nursing Students: A Cross-Sectional Study. *International Journal of Environmental Research and Public Health*, *14*(11), 1434. https://doi.org/10.3390/ijerph14111434

The World Health Organization Quality of Life (WHOQOL). (n.d.). Retrieved December 9, 2020, from https://www.who.int/publications-detail-redirect/WHO-HIS-HSI-Rev.2012.03

Walker, S., & Hill-Polerecky, D. (1987). *Health Promoting Lifestyle Profile II*. UNMC.Edu. https://www.unmc.edu/nursing/faculty/health-promoting-lifestyle-profile-II.html

YILMAZ, D., TANRIKULU, F., & DIKMEN, Y. (2017). Research on Sleep Quality and the Factors Affecting the Sleep Quality of the Nursing Students. *Current Health Sciences Journal*, *1*, 20–24. https://doi.org/10.12865/CHSJ.43.01.03

Appendix A

Facebook Post for recruitment:

"Hi Everyone!

My name is Reilly Gilmour, and I am an undergraduate senior nursing major looking to collect data for my honors thesis. I am interested in both nursing and non-nursing majors to participate, in order to determine the differences and/or similarities between the health habits of both groups of students. Participants must be at least 18 years old and English speaking and a University of New Hampshire Undergraduate student. I am asking you to fill out a survey that should take around 25 minutes to fill out. The survey contains statements about your personal health and the frequency as to how often you engage in these statements. I would really appreciate your participation to help me complete my research!

Thank you,

Reilly Gilmour"