Health Promoting Lifestyle among Nurses of a Tertiary Level Hospital

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ABSTRACT

Background: Lifestyle-related diseases are increasing worldwide representing 63% of all deaths globally. Health-promoting behaviors among nurses may affect the quality of patient care and education. This study aims to identify the health-promoting lifestyle among nurses.

Methods: Descriptive, cross-sectional study design was used among 111 nurses working in Manipal Teaching Hospital, Pokhara from November 2016 to March 2017. A simple random sampling technique (lottery method) was applied using a self-administered structured standard tool, Health Promoting Lifestyle Profile II. The analysis was done using an independent t-test.

Results: The total Health-Promoting Lifestyle Profile II mean score was 137.66 ± 19.18. The highest mean score was in spiritual growth (27.43 ± 4.63) and lowest in physical activity (17.03 ± 4.88). A good health-promoting lifestyle was among 60.4% of the nurses. The significant difference in the mean score of total Health-Promoting Lifestyle Profile II was found in marital status (p = 0.031) and educational qualification (p = 0.009). Likewise, the significant mean difference of interpersonal relations, nutrition and stress management was found with educational qualification (p < 0.05). The significant mean difference in nutrition was also found with marital status (p = 0.02). There was a significant mean difference in physical activity and spiritual growth with work experience (p<0.05).

Conclusion: The spiritual aspect of health has been more focused by the nurses. Along with this, nurses need to put greater emphasis on physical activity and stress management for better health.

Keywords: Health Promotion; Lifestyle; Nurses, Nepal
INTRODUCTION

Lifestyle of an individual influences health-promoting behaviors. According to WHO 2012, 70-80% of deaths in developed and 40-50% in less-developed countries are due to lifestyle associated diseases.

Nurses comprise the strongest health care force of 3.6 million and have the power to make difference in promoting health. Nurse can be a good example for being healthy by adopting healthy ways of living such as having balanced diet, managing stress, avoiding tobacco, getting immunizations and screenings etc.

Studies have shown that nurses who smoke are less willing to promote healthy behaviors. A study conducted in America found that the majority of nurses were overweight, and self-reported health, diet and physical activity behaviors were low. While the study among Australian nurses revealed that the majority (94%) indicated good, very good (45.5%) and excellent (19.4%) health. Likewise, a study conducted in Malaysia showed that nurses had a positive health-promoting lifestyle (HPL) with a score of 2.58 ± 0.34. The highest score was reported in spiritual growth (2.92 ± 0.43) and lowest in physical activity (1.74 ± 0.39).

Nurses are caregivers, lifesavers and trusted resources. Hence, it is important for nurses to take care of their own health so as to deliver quality care. Nurses who are healthy and participate in healthy lifestyle behaviors are more likely to promote positive lifestyle of patients. Considering nurses as role model in health promotion and having professional knowledge regarding healthy lifestyle, little is known about nurses’ own lifestyle behaviors. In our context as well, these kinds of studies are limited and the health promoting lifestyle behaviors among nurses seem to be unexplored. Hence, this study aims to assess the health promoting lifestyle among nurses.

MATERIALS AND METHODS

Descriptive cross sectional research design was adopted to conduct the study from November 2016 to March 2017 among 111 nurses working in Manipal Teaching Hospital, Pokhara. Ethical approval was obtained from Research Committee of Pokhara Campus and Institutional Review Board of Tribhuvan University, Institute of Medicine. Written informed consent was taken from the participating nurses.

Sample size was calculated by using sample size calculation formula on the basis of mean score and standard deviation of total HPLP II score as 124.5 and 22.3 respectively from a study conducted in Iran and then formula for finite population was applied. Nurses with Proficiency Certificate Level or Bachelor level nursing qualification with work experience of more than 6 months were included in the study. A probability simple random sampling (Lottery method without replacement) was used. A self-administered structured questionnaire consisting of standard Health Promoting Lifestyle Profile II (HPL II) developed by Walker et al. was used which has six subscales.

Mean was calculated for overall health promoting lifestyle and mean of the responses to subscale
items was calculated to obtain score of the six subscales. Statistical Package for Social Science (SPSS) Software Version 16 was used. Independent t-test was used for analysis.

RESULTS

The study was conducted among 111 nurses. The age of the nurses ranged from 19 to 40 years with mean age of 24.09 ± 4.16. The majority (65.8%) of the nurses were between 19-24 age group. In respect to marital status, 61.3% of the nurses were unmarried and 88.3% of the nurses were living with family. (Table 1)

Table 1. Distribution of Socio-demographic Characteristics of Nurses (n= 111)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (in years)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19-24</td>
<td>73</td>
<td>65.8</td>
</tr>
<tr>
<td>25- 40</td>
<td>38</td>
<td>34.2</td>
</tr>
<tr>
<td>Mean age ± S.D.in years = 24.09 ± 4.16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marital status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unmarried</td>
<td>68</td>
<td>61.3</td>
</tr>
<tr>
<td>Married</td>
<td>43</td>
<td>38.7</td>
</tr>
<tr>
<td>Living arrangements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>With family</td>
<td>98</td>
<td>88.3</td>
</tr>
<tr>
<td>Without family</td>
<td>13</td>
<td>11.7</td>
</tr>
</tbody>
</table>

The job related characteristics of the nurses are given in Table 2. Majority (85.6%) of nurses were undergraduate. With regard to work experience, 62.2% of the nurses had experience of less than three years. More than half (53.2%) of the nurses were currently working in general ward. Note: undergraduate and graduate nurses included those who have passed PCL and bachelor’s degree in nursing education respectively.

Table 2. Distribution of Job related Characteristics of Nurses (n= 111)

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educational qualification</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Undergraduate</td>
<td>95</td>
<td>85.6</td>
</tr>
<tr>
<td>Graduate</td>
<td>16</td>
<td>14.4</td>
</tr>
<tr>
<td>Working experience</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3. Distribution of Health related Characteristics of Nurses

<table>
<thead>
<tr>
<th>Variables</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived current health problem*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>21</td>
<td>18.9</td>
</tr>
<tr>
<td>Musculoskeletal</td>
<td>11</td>
<td>9.9</td>
</tr>
<tr>
<td>Gastrointestinal</td>
<td>4</td>
<td>3.6</td>
</tr>
<tr>
<td>Endocrinal</td>
<td>3</td>
<td>2.7</td>
</tr>
<tr>
<td>Others</td>
<td>6</td>
<td>2.7</td>
</tr>
<tr>
<td>No</td>
<td>90</td>
<td>81.1</td>
</tr>
<tr>
<td>Rating of current health</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Excellent</td>
<td>11</td>
<td>9.9</td>
</tr>
<tr>
<td>Good</td>
<td>80</td>
<td>72.1</td>
</tr>
<tr>
<td>Fair</td>
<td>20</td>
<td>18.0</td>
</tr>
</tbody>
</table>

*Multiple Response Question
Health related characteristics of nurses are shown in Table 3. Approximately one fifth (18.9%) of the nurses perceived that they had health problem. The most common health problem was related to musculoskeletal system (9.9%). In respect to rating of their current health, 72.1% of the nurses rated their current health as being good whereas, only 9.9% rated their current health to be excellent.

Table 4. Distribution of Level of Health Promoting Lifestyle among Nurses

<table>
<thead>
<tr>
<th>Health Promoting Lifestyle Level</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellent (172-208)</td>
<td>5</td>
<td>4.5</td>
</tr>
<tr>
<td>Good (132-171)</td>
<td>67</td>
<td>60.4</td>
</tr>
<tr>
<td>General (92-131)</td>
<td>37</td>
<td>33.3</td>
</tr>
<tr>
<td>Poor (52-91)</td>
<td>2</td>
<td>1.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>111</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Table 4 depicts that 60.4% of the nurses had good and only 1.8% of the nurses had poor health promoting lifestyle.

Table 5. Mean and Standard Deviation of Each Subscale of HPLP II among Nurse

<table>
<thead>
<tr>
<th>HPLP II Subscales</th>
<th>Mean ± SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spiritual growth</td>
<td>27.43 ± 4.63</td>
</tr>
<tr>
<td>Interpersonal relations</td>
<td>25.56 ± 3.81</td>
</tr>
<tr>
<td>Health responsibility</td>
<td>23.74 ± 4.78</td>
</tr>
<tr>
<td>Nutrition</td>
<td>23.37 ± 4.42</td>
</tr>
<tr>
<td>Stress management</td>
<td>20.50 ± 3.96</td>
</tr>
<tr>
<td>Physical activity</td>
<td>17.03 ± 4.88</td>
</tr>
</tbody>
</table>

Table 5 depicts that among the six subscales, the mean of spiritual growth was highest (27.43 ± 4.63) and physical activity was lowest (17.03 ± 4.88). Likewise, total HPLP II score was 137.66 ± 19.18.

Table 6. Difference in Socio-demographic and Job Related Variables with Total HPLP II Scores

<table>
<thead>
<tr>
<th>Variables</th>
<th>Number</th>
<th>Mean Score</th>
<th>SE Mean</th>
<th>t-value</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (in years)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19-24</td>
<td>73</td>
<td>136.83</td>
<td>2.09</td>
<td>-0.63</td>
<td>0.530</td>
</tr>
<tr>
<td>25-40</td>
<td>38</td>
<td>139.26</td>
<td>3.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marital status</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unmarried</td>
<td>68</td>
<td>134.55</td>
<td>2.02</td>
<td>2.18</td>
<td>0.031</td>
</tr>
<tr>
<td>Married</td>
<td>43</td>
<td>142.58</td>
<td>3.33</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Living arrangements</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 6 depicts that there was significant difference in marital status ($p=0.031$) and educational qualification ($p=0.009$) with total HPLP II scores. However the highest mean was observed with increasing age (139.26), education (149.12), work experience (141.97), among married (142.58) and those living with family.

### DISCUSSION

The finding of this study shows that mean of spiritual growth is highest (27.43) and physical activity is lowest (17.03). The high value of spiritual growth may be due to the trends driving interest in spirituality. Lowest score in physical activity might be due to the factors like lack of time, facilities having inconvenient schedule and exercise not fitting around duty schedules. This corresponds to the findings of previous studies.

The present study analyzed that the total mean score on HPLP II was (137.66±19.18). The finding is slightly similar with the study conducted in Iran. The present study depicts that there is significant difference in marital status ($p=0.031$) with total HPLP II scores. Similar result was obtained in a study conducted in Turkey. The result of the present study shows that there is significant difference between educational qualification and total HPLP II scores. This finding is in contrast to the study conducted in Iran.

The present study shows that the difference in educational qualification and interpersonal relations subscale is significant ($p=0.01$). This is opposite with the results of study conducted in Taiwan which indicated that the difference in work experience and interpersonal relations was significant. The present study represents that the difference in nutrition subscale with marital status is significant ($p=0.02$). This might be due to the reason that married individuals have intake consistent with the dietary guidelines and that they may have impact in food preparation, preferences, income, amount and varieties of food, etc. The finding of this study is similar with findings of study conducted in Iran.

The findings of this study shows that there is no statistical significance difference in health responsibility with respect to socio demographic and job related variables. While the study carried in Taiwan showed significant difference in work experience with health responsibility. This might be due to cultural differences.

There was statistical significant difference in physical activity with work experience ($p=0.038$) in present study. In contrary Lee found that nurses...
(≥ 35 years) with more experience were less likely
to maintain healthy weight indicating low physical
activity.21

The results of this study illustrates difference in
stress management subscale for educational
qualification \(p=0.005\). The reason may lie in the
fact that schools and colleges play a vital role in
stress management by assuring a healthy learning
environment, providing services for stress
reduction, enhancing student’s knowledge and
skills for coping with stress, and coordinating
activities with families and communities. However
the study done in Pennsylvania showed significant
differences in stress management with age of
nurses.22

The present study depicts that there is statistical
significant difference in work experience with
spiritual growth. Though statistically insignificant,
this study shows higher mean score of spiritual
growth among nurses living with family. This
might be due to the fact that family life increases
spirituality by growing together and supporting
each other.23 The similar result was obtained in
previous study.1

**CONCLUSION**

The health promoting behaviors are more among
nurses who are married and graduates. Amongst
the health promoting behaviors, spiritual aspect has
been more focused by the nurses. In addition, lifestyle modifications regarding increasing
physical activities and stress management need to
be emphasized for promoting better health.

**Acknowledgement**

We would like to thank all the nurses who participated in the study.

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