

Health Promoting Lifestyle among Adults of Banepa Municipality during Covid-19 Pandemic

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Abstract— A cross-sectional, descriptive survey was conducted with 288 adults' chosen through Probability Proportionate sampling from four wards of Banepa municipality to identify the health-promoting lifestyle among adults during the COVID-19 pandemic. The participants completed self-administered questionnaires on socio-demographic, socio-economic, as well as the Health-Promoting Lifestyle Profile (HPLP) developed by Walker et al. The results showed that the mean score for the Health-Promoting Lifestyle Profile II was 2.65 ± 0.36 . Spiritual growth had the highest mean score (3.09 ± 0.2), while physical activity had the lowest mean score (2.31 ± 0.59). Overall, spiritual growth and interpersonal health showed marginal improvement during the COVID-19 pandemic, while physical activity and healthy nutrition practices significantly declined.

Keywords— Health promoting lifestyle; Adults; COVID-19; Pandemic.

I. INTRODUCTION

The Chinese authorities said on December 31, 2019, that they had discovered a new virus that was the source of pneumonia in Wuhan City, Hubei Province, China. [1]. The new virus which may cause illness ranging from the common cold to more serious conditions including Middle East respiratory syndrome and severe acute respiratory syndrome is supposed to be member of broad family of viruses known as coronavirus. The World Health Organization on 11th March, 2020 officially declared COVID-19 to be a pandemic, as soon as it became clear that the illness was severe and that it was spreading quickly over a wide area [2].

Health promotion involves controlling all behaviors that might affect one's health and adopting behaviors that serve to maintain and raise individuals' wellness levels [3]. Pender and Pender (1996) defined health-promoting behavior as a multidimensional pattern that involves six aspects: nutrition, physical activity, stress management, health responsibility, interpersonal relationships and spiritual growth [4]. While engaging in health-promoting activity is crucial to maintaining good well-being while battling the COVID-19 pandemic, it may also be impacted by the preventive measures used to stop it, which will cause their own issues once COVID-19 has been stopped. Planning for life after the COVID-19 pandemic and creating main preventative measures as soon as possible to mitigate the damages that it may cause need investigating the

impact of the current COVID-19 pandemic on health-promoting lifestyles among the population. [5].

In Jazan, Saudi Arabia, a study conducted among adults revealed that health-promoting behaviors were practiced intermittently, with physical exercise being the least reported behavior and spiritual growth being the most frequent [5]. Similarly, a survey conducted in Italy demonstrated a significant decrease in physical activity across all age groups, particularly among men [6]. In Sri Lanka, a cross-sectional study highlighted increased physical inactivity, reduced exercise, and elevated sedentary behavior during the COVID-19 lockdown period, leading to weight gain in more than one-third of the sample [7].

Furthermore, a study in Thailand indicated that participants achieved moderate levels of health-promoting behaviors in nutrition, interpersonal relations, spiritual growth, and stress management, but lower levels in physical activity and health responsibility [8]. Additionally, a retrospective study conducted in a district hospital in Nepal observed an alarming increase in cases of hypertension and diabetes mellitus during the COVID-19 period, attributed to factors such as inadequate medication supply, fear of seeking healthcare, irregular dietary habits, and decreased physical activity [9].

Concern exists on the implications of the pandemic on mental health. Alarmingly, data suggest that there is an increase in suicide rates during lockdowns, with a startling 20% increase in the first month compared to the pre-pandemic period. During this exceptional situation, for intervention to improve physical fitness, encourage healthy habits, and address mental health issues. [10].

Understanding the impact of the COVID-19 pandemic not only on health-promoting behaviors but also in mental well-being is crucial for formulating effective strategies and interventions to mitigate the adverse effects. By looking at the findings from these studies, we can gain insights into the challenges faced by individuals globally and identify potential areas.

II. METHODS

2.1. Subjects

Adults of age group 20-59 residing in Banepa Municipality, Nepal.

1) *Inclusion criteria*

Adults who have completed 20 years and not crossed 59 years were selected.

2) *Exclusion criteria:*

Adults suffering from lifestyle-affecting diseases like diabetes, multiple sclerosis, and musculoskeletal disorders. Inability to complete the survey tools because of communication or cognitive difficulties.

2.2. Research methodology

2.2.1. Study design:

Cross-sectional study

2.2.2. Sample size:

The sample size was determined by using the formula developed by Cochran:

$$n = \frac{z^2(1-p)}{d^2 + z^2 pq/N}$$

Based on a 95% confidence interval and margin of error of 5% and prevalence of 74.16% [5]. Thus, the estimated sample size was 288 individuals. We used the Proportionate probability sampling method to recruit potential participants.

2.2.3. Study instrument:

The questionnaire was adopted and modified from previously published studies. The questionnaire consisted of two sections. The first section collects the respondents' demographic information such as their age, gender, marital status, status of education. The second section consisted of questions about the Health-Promoting Lifestyle Profile (HPLP II) developed by Walker et al. [11].

2.2.4. Data collection:

The information was gathered between December 2021 and January 2022. Only those who met the inclusion criteria and gave their written agreement to participate in the study were contacted for the interviews. They also informed the participants that their data would be kept anonymous and confidential. The structured questionnaire was used by the interviewers to conduct the interview.

1.2.5. Data analysis:

Data was analyzed by using Statistical Package for the Social Sciences (SPSS) version 24. Descriptive statistics, such as frequency and percentage, were used to describe the data.

1.2.6. Ethical issues:

The study was approved by the Institutional Review Committee of the Manmohan Memorial Institute of Health Sciences on 1st November 2021.

III. RESULTS

3.1 *Demographic characteristics of the participants*

Table 1 shows the demographic characteristics of the respondents. The age ranged from 20 to 59 years with mean age of 36.35 ± 11.548. The mean (SD) age of the participants in this study was 36.35 (11.45) years. More than half (55.6%) were female and 44.4% were male. In respect to marital status, nearly one third (30.6%) of the participants were unmarried and 65.61% were married and 2.4% were widow. More than half (52.4%) of the participants used to live in joint family followed by 45.1% living in nuclear family and only few lived in extended family (2.4%).

Majority of the respondents 93.8% were literate and only few 6.3% were illiterate. Among the literate 39.2% pursue university education followed by same percentage 39.2% in secondary level of education and 15.3% in primary level of education.

TABLE 1: Demographic Characteristics of the Respondents

Characteristics	Category	Frequency (n)	Percentage (%)
Age group Mean = 36.35 Standard Deviation (S.D = 11.542)	20-36	145	50.3
	37-59	143	49.7
Gender	Male	128	44.4
	Female	160	55.6
Marital status	Unmarried	88	30.6
	Married	189	65.9
	Divorced	4	1.4
	Widow	7	2.4
Type of family	Nuclear	130	45.1
	Joint	151	52.4
	Extended	7	2.4
Education status	Illiterate	18	6.3
	Literate	270	93.8
level of education	Primary	44	15.3
	Secondary	113	39.2
	University education	113	39.2

3.2 *Health-Promoting Lifestyle Profile total and subscale mean scores of respondents*

Below table shows that on average, participants reported engaging in health-promoting lifestyle 'sometimes' (mean = 2.65, range = 1–4). Spiritual growth (3.09 ± 0.52) was the most practiced dimension of health-promoting lifestyle among this sample, while physical exercise (2.31 ± 0.59) was the least practiced dimension. Table provides the mean, minimum and maximum for the total scale and each subscale of health promoting lifestyle.

TABLE 2: Health Promoting Lifestyle Profile total and subscale mean score of Respondents

Health-promoting lifestyle	Minimum	Maximum	Mean	SD	1-4
Health-promoting lifestyle (total scale)	1.69	3.67	2.65	0.36	1-4
Health responsibility subscale	1.38	3.63	2.50	0.43	1-4
Physical activity subscale	1	3.88	2.31	0.59	1-4
Nutrition subscale	1.44	3.56	2.40	0.4	1-4
Spiritual growth subscale	1.56	4	3.09	0.52	1-4
Interpersonal relationships subscale	1.75	4	2.86	0.43	1-4
Stress management subscale	1.43	3.86	2.71	0.50	1-4

IV. DISCUSSION

This study assessed the effect of the COVID-19 pandemic on health-promoting lifestyle among adults in Banepa municipality. Health promoting lifestyle plays a great role in health hence societies all over the world have been increasingly renowned as seeking a measure to accomplish quality of health life.

This study assessed average mean score for total HPLP which was 2.65±0.63 this showed that respondent's health

promoting lifestyle was satisfactory. Most subscales were practiced ‘sometimes’ except for physical exercise, which was reported as ‘never’, and spiritual growth, which was reported as ‘often’. The research conducted in 2013 among Arab immigrants by Aqtash S shows the similar finding indicating that the least practiced dimension of health-promoting lifestyle is Physical exercise, while spiritual growth is the most practiced dimension among adults. The trends driving interest in spirituality may have caused high value of spiritual growth.[12].

The prolongation of the lockdown period and home confinement due to the pandemic, an increase in activities such as sitting and lying, and a decrease in regular physical activity and sports activities have been observed which leads to the lowest score in physical activity. This finding is consistent with the research conducted by Uysal H in 2021 to determine the physical activity levels of adults in the COVID-19 pandemic, it was found that individuals’ moderate physical activity levels decreased during the pandemic period [13].

Beside physical exercise nutrition is the least practiced subscale of health promoting lifestyles with mean value 2.40±0.4. The study conducted in Canada by Carroll N in 2020 among middle to high income Canadian families also shows that eating and meal routines have changed since COVID-19 [14]. It might be due to the lockdown, source of income was confined and people were compelled to eat what they have within their home either nutritional or not.

V. CONCLUSION

The overall objective of this study was to assess the effect of COVID-19 Pandemic on the health promoting lifestyles of adults residing on Banepa municipality. The result of this study showed that the overall health-promoting lifestyle was good, with ample room for improvement in terms of the sub-dimensions of physical activity and nutrition. In this study, spiritual growth, interpersonal relations, and stress management were noted for good practices while physical activity, nutrition, and health responsibility were poor as compared to them.

It is well recognized that lifestyle has a crucial impact on health. A person's healthy dietary habits and level of physical activity have a good impact on their immune system, which is crucial for illness prevention. It is recommended to explain the effects of COVID19 disease on individuals who do not have healthy eating habits, do not do physical activity and do not show healthy lifestyle behaviors, and to explain the importance of the disease by using the media and social media sites, to reach individuals and to take initiatives to raise awareness

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