

Disease Prevention Behaviors Exhibited by College Students in The Philippines: The Post-Pandemic Scenario

Dr. Judith D. Ismael¹, Dr. Wilbert G. Panerio², Dr. Lloyd Matthew C. Derasin³ and Dr. Edgar P. Pangué⁴

¹Dean, College of Nursing and Allied Health Sciences, Cebu Institute of Technology University

²⁻⁴Clinical Instructor, College of Nursing and Allied Health Sciences, Cebu Institute of Technology University

Abstract – the study focused on the Disease Prevention Behaviors Exhibited by College Students in The Philippines. This study employed descriptive-correlational research. This study examined the characteristics that predict disease-preventive behaviors among college students, as well as the influence of demographic factors on these behaviors. Moreover, the research was carried out at Cebu Institute of Technology - University, situated on N. Bacalso Avenue in Cebu City. In this investigation, a systematic sampling strategy was employed, the respondents participating in this study were composed of three hundred eighty-five (385) college students of Cebu Institute of Technology – University. The study found that age affects preventative behavior. The type of program people is in also seems to affect their willingness to take preventative actions. The study indicated that younger people were more likely to prevent than older people. This may be due to younger people's increased awareness and invincibility. The study also found that people who were enrolled in programs that clearly explained preventative actions were more inclined to participate. Effective communication and education are crucial to promote preventative behavior across age groups.

Keywords: Preventive Behavior, College student, and Post–Pandemic.

Introduction

Health promotion behavior is a vital element in the prevention of disease and enhancement of quality of life (Derasin, 2019). Consequently, it holds a pivotal position in the realm of public health. Health promotion behavior is influenced by exercise, food, and stress management resulting from one's lifestyle, as well as changes in the living environment. Illustratively, the emergence of the COVID-19 Pandemic significantly altered the everyday existence of individuals across the globe. Following the formal declaration of the COVID-19 pandemic by the World Health Organization (WHO), health authorities advised the public to practice social distancing and reduce interpersonal interaction as preventive measures. These measures aimed to limit the spread of the virus and protect vulnerable populations. As a result, individuals had to adapt their lifestyles and make significant changes in their daily routines (De Pedro and Derasin, 2022). This included finding alternative ways to exercise, adopting healthier eating habits, and implementing stress management techniques at home. The pandemic highlighted the importance of health promotion behaviors and emphasized the need for

individuals to prioritize their overall well-being to maintain a healthy lifestyle during challenging times.

During and after the COVID-19 pandemic, it has been found that behavioral strategies are essential for maintaining crisis control. Various international research has revealed the effects of the COVID-19 pandemic on students' health behaviors. The COVID-19 limits have caused alterations in sleep patterns (Merelli et. al., 2021), sedentary behavior (Moore et. al., 2020), and physical activity levels (Constandt, 2020). These changes in health behaviors have been attributed to disruptions in daily routines (Canque et. al., 2023) and increased screen time due to remote learning (Derasin et. al., 2021; Canque et. al., 2021; Carredo et. al., 2022; Abojon et. al., 2022) and social distancing measures. Additionally, the lack of access to sports facilities and limited opportunities for outdoor activities have further contributed to the decline in physical activity levels among students.

However, there is a scarcity of studies undertaken in the Philippines that explore the health practices of college students post-pandemic. Currently, knowledge is scarce regarding the impact of COVID-19 on these crucial lifestyle practices

among college students. This knowledge gap is concerning, as college students are a vulnerable population that may experience unique challenges and stressors during and after the pandemic.

Understanding how COVID-19 is influencing the lifestyle behaviors of college students may inform university decisions related to virtual classes and help universities to create programs and resources for health promotion during remote learning. Additionally, studying the impact of COVID-19 on college students' lifestyle behaviors can provide insights into potential mental health challenges that may arise during remote learning. This information can guide universities in developing appropriate support systems and counseling services to address the psychological well-being of their students amidst the pandemic. Hence, it is the purpose of this study to investigate the Disease Prevention Behaviors Exhibited by College Students in The Philippines and identify the factors that influence these behaviors. Understanding the disease prevention behaviors of college students is crucial in developing effective interventions and strategies to promote their health and well-being. By examining the specific behaviors exhibited by this population, we can gain insights into their knowledge, attitudes, and practices related to disease prevention, ultimately leading to improved health outcomes for college students in The Philippines.

Methods and Materials

This study employed a descriptive research design to investigate the Disease Prevention Behaviors Exhibited by College Students. This study examines the characteristics that predict disease-preventive behaviors among college students in Cebu, as well as the influence of demographic factors on these behaviors.

Moreover, the research was carried out at Cebu Institute of Technology - University, situated on N. Bacalso Avenue in Cebu City. In this investigation, a systematic sampling strategy was employed. Stratified random sampling is a method

used by researchers to select individuals of a community at predetermined intervals, based on likelihood. If the population structure exhibits randomness or randomness-like characteristics, this method will produce a representative sample that allows for drawing inferences about the population.

The respondents participating in this study were composed of three hundred eighty-five (385) college students of Cebu Institute of Technology – University. It is requisite for the respondents to have an email account or any social media platform for them to receive the research survey questionnaire via Google Forms. Target respondents were undergraduate college students aged from 17 years old to 24 years old above, be they female or male respondents.

Moreover, in this study, the researchers used researcher-created and standard questionnaires that could be completed in 10 minutes. These questions were used to identify and assess the respondents' demographic profile, preventive health behavior, and perceived health beliefs with the aid of a health belief model. The research instruments were extracted from a published questionnaire derived from the study titled "Assessing Preventive Health Behaviours from COVID-19: A Cross-sectional Study with Health Belief Model in Golestan Province, Northern Iran." This questionnaire was developed in response to the COVID-19 pandemic. This survey consists of 25 closed-ended questions.

Results and Discussion

This section provides a comprehensive examination and interpretation of the data collected to evaluate the preventive behaviors exhibited by college students in Cebu. The data analysis includes a detailed breakdown of the types of preventive behaviors practiced by the students as well as an exploration of any patterns or trends that emerged. Additionally, the findings are discussed about existing literature on preventive behaviors among college students, providing valuable insights for future research and interventions in this area.

Table 1. Profile of the Respondents

Variable	Characteristics	Nature of Program Enrolled					
		Medical		Non-medical		Total	
		f	%	f	%	f	%
Age	17 - 19	38	24.68	54	23.38	92	23.90
	20 - 21	54	35.06	136	58.87	190	49.35
	22 - 23	54	35.06	37	16.02	91	23.64
	24 & above	8	5.19	4	1.73	12	3.12
Gender	Male	33	21.43	108	46.75	141	36.62
	Female	121	78.57	123	53.25	244	63.38

Table 1 presents the demographic profile of the students. As shown, most of the respondents were 20 – 21 years old. In both medical and non-medical students, the respondents were mostly female. Based on their course selection and other characteristics, college students appear to come from a variety of backgrounds. These backgrounds can include different majors, such as engineering, business, or liberal arts.

Kim and Joung (2002) noted that the prevalence of health promotion significantly declines after reaching 18 years of age, coinciding with the commencement of college for most individuals. It is

crucial to prioritize health promotion among college-age students due to the relatively higher feasibility of modifying behavioral patterns during early adulthood, as opposed to middle and late adulthood. Furthermore, the behaviors established during this era have the potential to shape future patterns of health behavior by focusing on health promotion during college years, individuals can develop healthy habits that can carry over into their later years. This can have long-term benefits for their overall well-being and reduce the risk of chronic diseases later in life.

Table 2. Preventive Behaviours of the Respondent

Preventive behaviours	Always No., Percent	Often No., Percent	Sometimes No., Percent	Rarely No., Percent	Never No., Percent
1. I cover my mouth and nose with a tissue when I cough or sneeze using the inside of my elbow	283, (73.51%)	78, (20.26%)	20, (5.19%)	4, (1.04%)	0
2. I put distance between myself and other people	124, (32.21%)	158, (41.04%)	94, (24.42%)	9, (2.34%)	0
3. I don't leave the house unless absolutely necessary	210, (54.55%)	85, (22.08%)	76, (19.74%)	13, (3.38%)	1, (0.26%)
4. I clean and disinfect frequently touched surfaces daily	133, (34.55%)	144, (37.40%)	91, (23.64%)	15, (3.90%)	2, (0.52%)
5. I do not touch my eyes, nose, and mouth my hands	64, (16.62%)	136, (35.32%)	137, (35.58%)	37, (9.61%)	11, (2.86%)
6. I do not take my cell phone out of my pocket	39, (10.13%)	72, (18.70%)	135, (35.06%)	100, (25.97%)	39, (10.13%)
7. I follow the rules implemented by the government during this COVID-19 outbreak	252, (65.4%)	106, (27.53%)	24, (6.23%)	3, (0.78%)	0

Table 2 displays the percentages of participants who consistently practiced preventive behaviors. Specifically, 73.51% always covered their mouth and nose with a tissue, 65.45% followed government-implemented rules, 54.55% refrained

from leaving the house unless necessary, 34.55% regularly cleaned and disinfected touched surfaces, and 32.21% always maintained distance from other people. The behaviors with the lowest levels of

compliance were "touching face by hands" and "non-use of mobile phones outside the house", which were consistently observed by 16.62% and 10.13% of participants, respectively.

College students encounter difficulties such as adjusting to changes in academic demands, social support systems, and unfamiliar surroundings. In addition to these modifications and newfound obligations, college students now possess more extensive autonomy and authority over their way of life than ever before. Therefore, this phase of transition presents a favorable opportunity to develop and adopt beneficial lifestyle habits (Dinger & Waigandt 1997). Nevertheless, different studies have demonstrated that a significant

number of university students partake in a range of hazardous health behaviors. These behaviors encompass alcohol consumption, tobacco usage, lack of physical activity, and unhealthy eating habits. Additionally, students tend to neglect safety precautions such as wearing helmets, seat belts, and condoms. Furthermore, they engage in excessive sun exposure, which can potentially have enduring consequences for their overall well-being (Steptoe & Wardle, 2001).

Table 3. Difference of Preventive Behaviours according to the profile

Variables	Characteristics	Preventive Behavior			
		F Stat	P-value	Decision	Interpretation
Age	17-19	2.511	0.058	Failed to Reject Ho	Not Significant
	20-21				
	22-23				
	24 & above				
Gender	Male	7.792	0.006	Reject Ho	Significant
	Female				
Nature of Program enrolled	Medical	3.873	0.050	Reject Ho	Significant
	Non-medical				

*Significant at 0.05 level of Significance

Table 3 expounded on the Difference in Preventive Behaviours according to the profile. With a P value of 0.006, there is a significant difference in preventive behavior when classified with the age of the respondent. Likewise, with a P-value of 0.050, there is a significant difference in preventive behavior if classified according to the Nature of the Program enrolled. These findings suggest that age plays a crucial role in determining the effectiveness of preventive behavior. Additionally, the Nature of the Program enrolled seems to have a strong influence on individuals' willingness to engage in preventive measures.

The study conducted by Duan et al. (2022) found that women exhibit a higher frequency of engaging in preventive behaviors compared to men. This suggests that women may have a greater sensitivity and concern towards their health status, as well as a higher level of compliance with advice.

Furthermore, the study also revealed that women tend to have a better understanding of the potential risks and benefits associated with preventive behaviors. This could be attributed to various factors such as societal expectations, cultural norms, and personal experiences that shape their attitudes toward health maintenance. Additionally, Researchers have seen notable disparities between women and men in terms of their perceptions of danger, concern, and apprehension regarding COVID-19. Existing research has generally found that women exhibit a greater perception of the danger of COVID-19 compared to males (Barber and Kim, 2021; Galasco et al., 2020; Rana et al., 2021). Additionally, women tend to have more pronounced levels of concern and panic (Nino et al., 2021).

Moreover, according to Thanaphonganan et al. (2021), there is a positive correlation between

students' interest in medical undergraduate courses and their awareness of health-preventative activities. This finding suggests that students who are more interested in medical undergraduate courses are more likely to engage in health-

Conclusion

Based on the findings of the study, it was discovered that age is a significant factor in determining the efficacy of preventative behavior. Another factor that appears to have a significant impact on the degree to which individuals are willing to participate in preventative measures is the nature of the program in which they are enrolled. For instance, the study found that younger individuals were more likely to engage in preventative behavior compared to older individuals. This could be attributed to factors such as higher levels of awareness and a greater sense of invincibility among younger age groups. Additionally, the study revealed that individuals who were enrolled in programs that provided clear and concise information about the benefits of preventative measures were more likely to actively participate in them. This highlights the importance of effective communication and education in promoting preventive behavior among different age groups.

Reference

1. Abojon, J. A., Derasin, L. M. C., Canque, M. S., Cordero, L. S., & Trinidad, G. A. (2022). Technological Skills of Senior High School Students in State-Run Basic Education Institutions in the Philippines. *European Chemical Bulletin*, 12, (Special Issue 4), 12510-12518.
2. Barber, S. J., & Kim, H. (2021). COVID-19 worries and behavior changes in older and younger men and women. *The Journals of Gerontology: Series B*, 76(2), e17-e23.
3. Canque, M. S., Derasin, L. M. C., Cortez, J. A., & Gamboa, F. V. A. (2021). Microprocessor Course in a Virtual Classroom Perspectives from Technology Students in a State University in the Philippines. *Turkish Online Journal of Qualitative Inquiry*, 12(7).
4. Canque, M. S., Cordero, L. S., Derasin, L. M. C., & Pinatil, L. L. (2023). Resumption of in-Person Classes in the State-Run Basic Education Institutions in the Philippines: Lived Experience of Filipino Junior High School Students. *Telematique*, 22(01), 495-503.
5. Carredo, G., Delgado, M. J., Dragas, F., Rasco, A. M., & Derasin, L. M. (2022). Effect of Learners' Level of Motivation in Developing Their Study Habits Amid the Pandemic. *International Journal of Science and Management Studies*, 5(4).
6. Constandt, B., Thibaut, E., De Bosscher, V., Scheerder, J., Ricour, M., & Willem, A. (2020). Exercising in times of lockdown: an analysis of the impact of COVID-19 on levels and patterns of exercise among adults in Belgium. *International journal of environmental research and public health*, 17(11), 4144.
7. De Pedro, C. J. G., & Derasin, C. V. C. (2022). The development of English modules in senior high school: the teachers' journey. *Journal of Positive School Psychology*, 2251-2264.
8. Derasin, L. M. C., Canque, M. S., Horteza, A. D., & Jungoy, E. E. (2021). Virtual Learning In A State University In The Philippines: Perspectives From The Education Students. *Multicultural Education*, 7(10).
9. Derasin, L. M. C. (2019). Living on theory for chronic illness survival. *International Journal of Humanities and Social Science Research*, 5(4), 110-121.
10. Dinger, M. K., & Waigandt, A. (1997). Dietary intake and physical activity behaviors of male and female college students. *American Journal of Health Promotion*, 11(5), 360-362.
11. Duan, Y., Hu, C., Lin, Z., Liang, W., Shang, B., Baker, J. S., ... & Wang, Y. (2022). Individual preventive behaviors of COVID-19 and associated psychological factors among Chinese older adults: A cross-sectional online survey. *Frontiers in Psychology*, 13, 827152.
12. Galasso, V., Pons, V., Profeta, P., Becher, M., Brouard, S., & Foucault, M. (2020). Gender differences in COVID-19 attitudes and behavior: Panel evidence from eight countries. *Proceedings of the National Academy of Sciences*, 117(44), 27285-27291.
13. Kim Y.H., Joung M.S., Lee J. (2002). Study on health promoting behavior determinant of nursing

- students. *Journal of Korean Public Health Nursing*, 16(2), 285 – 303.
14. Marelli, S., Castelnovo, A., Somma, A., Castronovo, V., Mombelli, S., Bottoni, D., ... & Ferini-Strambi, L. (2021). Impact of COVID-19 lockdown on sleep quality in university students and administration staff. *Journal of neurology*, 268, 8-15.
 15. Moore, S. A., Faulkner, G., Rhodes, R. E., Brussoni, M., Chulak-Bozzer, T., Ferguson, L. J., ... & Tremblay, M. S. (2020). Impact of the COVID-19 virus outbreak on movement and play behaviours of Canadian children and youth: a national survey. *International journal of behavioral nutrition and physical activity*, 17(1), 1-11.
 16. Nino, M., Harris, C., Drawve, G., & Fitzpatrick, K. M. (2021). Race and ethnicity, gender, and age on perceived threats and fear of COVID-19: Evidence from two national data sources. *SSM-population health*, 13, 100717.
 17. Steptoe A. & Wardle J. (2001) Health behaviour, risk awareness and emotional well-being in students from Eastern Europe and Western Europe. *Social Science & Medicine* 53, 1621–1630.
 18. Thanaphonganan, N., Yurayat, P., & Seechaliao, T. (2022). Health Literacy and Preventive Behaviors of Undergraduate University Students During the COVID-19 Pandemic. *Journal of Education and Learning*, 11(2), 27-34.