Wellness in the Workforce: Exploring Health Beliefs and Behaviors on Non-Communicable Diseases Among Hospital Employees

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Abstract

Healthcare workers (HCWs) played a significant role in promoting and improving health behaviors and outcomes. They had a crucial role in the management and prevention of chronic diseases, and as well as in the promotion of health. However, the health and wellness of HCWs themselves were often overlooked, especially when it came to non-communicable diseases (NCDs). This study examined the health beliefs and wellness behaviors on NCDs among the 197 regular employees of Dr. Jose Rizal Memorial Hospital (DJRMH) using quantitative-descriptive correlational method. The findings revealed that DJRMH employees were predominantly middle-aged, with a significant female majority, and a substantial portion belonged to the lower-middle-income class. Health challenges were noted including high rates of overweight, obesity, elevated BP, High BP Stage 1, and High BP Stage 2. Despite strong health beliefs regarding chronic diseases and healthy living, behavioral inconsistencies were evident, particularly in diet, physical activity, substance use, and emotional wellness. While preventive health practices were regularly performed, barriers such as time, lifestyle habits, and personal challenges often limited full adherence to healthy behaviors. DJRMH employees exhibited strong potential for maintaining wellness, however, targeted strategies addressing behavioral barriers, promoting self-efficacy, and customizing interventions based on demographic profiles were necessary. Additionally, a comprehensive health intervention program is proposed to address these challenges, improve wellness practices, and support employees in adopting healthier lifestyles.

Keywords and Phrases: *healthcare workers, health beliefs, wellness behaviors, non-communicable diseases, health intervention program*

Introduction

Non-communicable diseases (NCDs), also known as chronic diseases, cause 41 million deaths annually, driven by preventable risk factors like smoking, poor diet, alcohol use, and inactivity (WHO, 2021). Healthcare workers (HCW) play an important role in NCD prevention health promotion; however, the health and wellness of HCWs themselves are often overlooked, especially when it comes to NCDs.

Health beliefs significantly influenced wellness behaviors. These health beliefs included perceptions of susceptibility, severity, benefits, and barriers (Skinner & Champion, 2015). Behaviors were said to be influenced by individuals' perceptions of risk, benefit, and barriers through a reasoning process (Wang et al., 2021). HCWs beliefs about health and wellness could impact their habits. Examining these beliefs will result to determining the challenges and their approach towards NCDs. However, limited studies focus on how these beliefs shape HCWs' own health practices (Brown et al., 2019). A gap between knowledge and actual practices regarding NCD prevention has been noted among HCWs, with many not constantly adopting lifestyle modifications. Understanding these factors will assist HCWs not only in managing their health but also enhance how they effectively educate patients.

This study aimed to examine how health beliefs influence wellness behaviors related to NCDs among regular employees of Dr. Jose Rizal Memorial Hospital (DJRMH) to recommend a health intervention program that was tailored to fit their health needs. DJRMH prioritizes the well-being of its employees alongside patient care aligned with its mission: 'To improve the health status of the people we serve.' The researcher spearheads health promotion activities in DJRMH; however, no previous studies have assessed the baseline health of its employees.

The study sought to investigate the profile of the respondents; their health beliefs; wellness behaviors; the significant difference in health beliefs according to profile; the significant difference in wellness behaviors according to profile; the significant relationship between health beliefs and wellness behaviors in NCDs; and the health intervention based on the results. The outcome of the study sought to empower the staff in health-related decision-making; increase health consciousness among them thereby preventing modifiable risks; and promote overall health and well-being.

Materials and Methods

This study utilized a quantitative-descriptive correlational study on the health beliefs in relation to wellness behaviors on non-communicable disease anchored on the Heath Belief Model. The study was conducted in Dr. Jose Rizal Memorial Hospital (DJRMH), a National Government Agency (NGA)referring to health facilities owned by the national government. DJRMH is the only DOH-retained hospital in Zamboanga del Norte located in National Highway, Dawo, Dapitan City.It is a Level II facility with General Services.ThecurrentAuthorized Bed Capacityas per License to Operate is 200.

The study's respondents were the regular employees of DJRMH, excluding the researcher. As of May 31, 2024, DJRMH has 456 regular employees across three divisions, including the Nursing Service, and the Medical Center Chief's Office (MCCO). Using the Raosoft Sample Size Calculator, the target sample size was 209 employees. However, due to uncontrollable circumstances, only 197 respondents completed the questionnaire.

Data were collected using a three-part questionnaire: the first section covered demographics, while the second and third parts assessed health beliefs and wellness behaviors, adapted from Wang et al. (2021). During the thesis defense, the thesis committee suggested conducting a pilot test of the instrument, since it came from an international source, to ensure its validity and reliability.Thus, a pilot test was conducted in two (2) hospitals in Dipolog City, Zamboanga del Norte, namely, Zamboanga del Norte Medical Center and Zamboanga del Norte Service Cooperative Hospital in Zamboanga del Norte.Pilot test results showed that internal reliability was established by Cronbach's coefficient alpha. The overall alpha value for the Health Beliefs was 0.81 with the High Reliability Test Result whereas the overall alpha value for the Wellness Behaviors was 0.74 with High Reliability Test Result. All these values were greater than the acceptable value of 0.70 and showed good internal reliability and adequate stability of the research instrument.

A simple sampling technique was utilized to select the respondents. The researcher requested a list of regular employees from the Human Resource Management Office (HRMO) per division and the MCCO. To avoid biases, the researcher requested that the list be randomized and decided beforehand whether to apply the odd or even selection before receiving the actual list. The selected respondents, based on the simple sampling technique, were then grouped and scheduled per batch.

Ethics approval was obtained from Jose Rizal Memorial State University and the DJRMH Research Ethics and Review Board, ensuring ethical standards were met. Data analysis included frequency counts, percentages, means, standard deviation, Kruskal-Wallis test, and Spearman's rho rank correlation.

Results and Discussions

Results, analysis, and interpretation of the data gathered from the regular employees of Dr. Jose Rizal Memorial Hospital. The main objective of the study was to examine how health beliefs influenced wellness behaviors on non-communicable disease among regular employees of Dr. Jose Rizal Memorial Hospital, Dapitan City as per Calendar Year 2024-2025.

Profile of the Respondents

The analysis of the age distribution reveals that the workforce at DJRMH is predominantly composed of individuals in their thirties. This suggests a mature working population with potentially significant experience. The substantial representation of the 41–50-year-old group further reinforces this observation. The smaller percentages in the

younger and older age brackets indicate a less significant presence of both entry-level and retirement-aged employees within the sample surveyed.

This finding concurred with the data according to the Philippine Social Science Council (2020), 65% of health professionals in the Philippines are under the age of 35, identifying them as the millennial generation.

Table 4.1. *Profile of Respondents in terms of Age*

Age	Frequency	Percentage
21-30 years old	26	13.2
31-40 years old	106	53.8
41-50 years old	43	21.8
51-60 years old	18	9.1
61 years old and above	4	2.0
Total	197	100

Table 4.2 presents the gender profile of the employee respondents from Dr. Jose Rizal Memorial Hospital (DJRMH). The data indicates a clear majority of female respondents, with 133 individuals accounting for 67.5% of the total. The analysis of the gender distribution highlights a significant skew towards female employees within the surveyed population at DJRMH. Females more than double the representation of male employees.

The table below confirms previous findings that women's share of employment in the health and social sector is high, with an estimated 67% of the health workforce in the 104 countries analyzed being female (Boniol, M., et. al, 2020).

Table 4.2. *Profile of Respondents in terms of Gender*

Gender	Frequency	Percentage
Male	62	31.5
Female	133	67.5
Gay	2	1.0
Total	197	100

Table 4.3 presents the socioeconomic status profile of the employee respondents from Dr. Jose Rizal Memorial Hospital (DJRMH), categorized based on their monthly income. The largest group of respondents falls into the lower middle socioeconomic status, with 91 individuals representing 46.2% of the total. The analysis of the socioeconomic distribution revealed that most employees DJRMH fall within the lower-middle and low-income but not poor socioeconomic brackets. This means that a large portion of the workforce earns a modest income—enough to meet basic needs but not necessarily enough to provide financial comfort or security.

These figures indicate that many hospital staff navigate financial limitations that influence their capacity to invest in their careers, maintain financial stability, and secure quality healthcare for themselves and their families. In contrast, national data reveal that fewer than 10% of health professionals live in poor households, with over 80% belonging

to the top two wealth brackets (Philippine Social Science Council, 2020). This disparity underscores the distinct financial conditions of DJRMH employees compared to the broader healthcare workforce.

Providing adequate financial security and professional growth opportunities enables employees to perform their roles effectively, contributing to a stronger and more resilient healthcare system.

Table 4.3. *Profile of Respondents in terms of Socioeconomic Status*

Socioeconomic Status	Frequency	Percentage
Poor (below P 10,957/month)	1	0.5
Low-income but not poor (P 10,957 to P21,914/month)	50	25.4
Lower middle (P 21,914 to P 43,828/month)	91	46.2
Middle (P 43,828 to P 76,669/month)	33	16.8
Upper middle (P 76,699 to P 131,484/month)	18	9.1
Upper middle but not rich (P 131,484 to P 219,140/month)	2	1.0
Rich (P 219,140/month and above)	2	1.0
Total	197	100

Table 4.4 details the religious affiliations of the employee respondents from Dr. Jose Rizal Memorial Hospital (DJRMH). The overwhelming majority of the respondents identify as Roman Catholic, with 163 individuals comprising 82.7% of the total. The analysis of the religious distribution reveals a strong dominance of Roman Catholicism within the DJRMH employee population. This likely reflects the general religious demographics of the region. The presence of various other religious denominations, although in smaller numbers, indicates a degree of religious diversity within the hospital workforce.

In the same way, Goh (2005) noted that the Philippines stand out as the only Asian country with a predominantly Christian population, with about 93% of its population adhering to various Christian denominations.

Table 4.4. *Profile of Respondents in terms of Religion*

Religion	Frequency	Percentage
Roman Catholic	163	82.7
Islam	3	1.5
Protestant	12	6.1
Seventh-day Adventist	6	3.0
Born Again	9	4.6
Church of Jesus Christ of Latter-Day Saints	1	0.5
Philippine Independent Church	2	1.0
Iglesia Ni Cristo	1	0.5
Total	197	100

Table 4.5 outlines the educational attainment of the respondents from Dr. Jose Rizal Memorial Hospital (DJRMH). A significant majority have completed higher education. Specifically, 119 individuals, representing 60.4% of the total, are college graduates. The educational profile of the DJRMH employees, as depicted in this table, indicates a highly educated workforce. The smaller number of respondents with only high school education suggests that most positions within the hospital necessitate some form of tertiary education. This level of educational attainment likely contributes to the quality of care provided and the capacity for continuous learning and professional development within the institution.

Table 4.5. *Profile of Respondents in terms of Educational Attainment*

Educational Attainment	Frequency	Percentage
Postgraduate	61	31.0
College Graduate	119	60.4
College Level	13	6.6
High School Graduate	3	1.5
High School Level	1	0.5
Total	197	100

Delving into Table 4.6, which details the marital status of the employees at Dr. Jose Rizal Memorial Hospital (DJRMH), the data reveals that most of the respondents are married.The marital status distribution within the DJRMH workforce suggests a predominantly settled demographic. The high percentage of married individuals could indicate a relatively stable and mature workforce. Most employees are married (71.1%), unlike the national data indicated nearly half (48%) of health professionals are single, while a similar proportion are married or cohabiting (Philippine Social Science Council, 2020).

Table 4.6. *Profile of Respondents in terms of Marital Status*

Marital Status	Frequency	Percentage
Single	53	26.9
Married	140	71.1
Widow	4	2.0
Total	197	100

Table 4.7 provides a snapshot of the various designations held by the employee respondents at Dr. Jose Rizal Memorial Hospital (DJRMH). It's evident that the largest single group is comprised of Nurses, with 66 individuals making up 33.5% of the total respondents.

The distribution of job roles at DJRMH reflects the typical structure of a hospital, where each team plays a vital part. Nurses and nursing attendants make up the largest group, emphasizing the hospital's strong focus on patient care. Administrative staff provides essential support, while specialized roles like lab technicians, pharmacists, and radiology and respiratory therapy staff—though fewer in number—showcase the wide range of skills needed to keep the hospital running smoothly. The limited presence of highly specialized positions may reflect either their smaller numbers or the survey's proportional sampling. Altogether, this staffing snapshot offers insight into the hospital's

diverse workforce and the collaboration required in delivering healthcare. Supporting this, Galvez-Tan et al. (2021) found that nurses are typically the largest group in hospitals across the Philippines, highlighting their central role in care delivery. The study also stressed the importance of adequate nurse staffing in ensuring quality and safe patient care.

Table 4.7. *Profile of Respondents in terms of Designation*

Designation	Frequency	Percentage
Administrative Aide	15	7.6
Administrative Assistant	14	7.1
Administrative Officer	11	5.5
Chemist	1	0.5
Chief of Medical Professional Staff	1	0.5
Computer Maintenance Technologist	2	1.0
Cook	3	1.5
Data Controller	1	0.5
Engineer	1	0.5
Hospital Housekeeper	1	0.5
Laboratory Aide	5	2.5
Laundry Worker	2	1.0
Medical Laboratory Technician	1	0.5
Medical Officer	11	5.6
Medical Technologist	4	2.0
Midwife	3	1.5
Nurse	66	33.5
Nursing Attendant	26	13.2
Pharmacist	4	2.0
Radiologic Technician	2	1.0
Radiologic Technologist	2	1.0
Respiratory Therapist	2	1.0
Social Welfare Assistant	1	0.5
Social Welfare Officer	1	0.5
Statistician	1	0.5
Total	197	100

Looking at Table 4.8, which details the length of service of the employee respondents at Dr. Jose Rizal Memorial Hospital (DJRMH), a notable trend emerges. The largest groups of employees have been with the hospital for either 1-5 years (82 respondents, 41.6%) or 6-10 years (84 respondents, 42.6%). The table also provides summary statistics for the entire sample: the minimum length of service is 0.3 years, the maximum is 36 years, the mean is 7.6 years, and the standard deviation is 5.9 years.

The distribution of the respondents' length of service suggests a workforce with a significant proportion of relatively newer employees, with over 84% having served for ten years or less. This could indicate recent growth in staffing or a moderate level of employee turnover. While there are employees with longer tenures, their numbers are considerably smaller. The mean length of service of 7.6 years, along with a standard deviation of 5.9

years, indicates a moderate spread around this average, suggesting a mix of both newer and more experienced staff. The presence of employees with very short service (0.3 years) and very long service (up to 36 years) further illustrates the range of experience levels within the hospital. This information is crucial for understanding workforce stability, identifying potential areas for retention strategies, and planning for knowledge transfer from more experienced to newer staff members.

A study by Galletta et al. (2017) highlighted the importance of a diverse workforce in healthcare, where long-tenured staff is said to provide mentoring opportunities to new hires, improving job satisfaction and retention.

Table 4.8. *Profile of Respondents in terms of Length of Service*

Length of Service (in years)	Frequency	Percentage	Min	Max	Mean	SD
1-5 years	82	41.6				
6-10 years	84	42.6				
11-15 years	15	7.6				
16-20 years	7	3.6	0.3	36	7.6	5.9
21-25 years	3	1.5				
26-30 years	4	2.0				
31-35 years	1	0.5				
More than 35 years	1	0.5				
Total	197	100				

Turning our attention to Table 4.9, which presents the Body Mass Index (BMI) of the employee respondents from Dr. Jose Rizal Memorial Hospital (DJRMH), we can see a distribution across different weight categories. The largest group falls into the overweight category, with 77 individuals accounting for 39.1% of the total. Following closely, 68 respondents (34.5%) are classified as having a normal weight. A significant portion of the respondents, 49 individuals or 24.9%, are categorized as obese. Finally, a small number, 3 respondents (1.5%), are underweight.

The analysis of the BMI distribution among DJRMH employees reveals that a substantial majority fall outside the normal weight range. Specifically, the combined percentage of overweight and obese respondents constitutes a significant 64%, indicating a potential concern for the overall health profile of the workforce. The relatively small proportion of underweight individuals suggests that undernutrition is not a widespread issue within this group. This prevalence of overweight and obesity could have implications for employee health, absenteeism, productivity, and healthcare costs for the institution. Addressing these trends through health and wellness programs might be beneficial for the long-term well-being of the hospital staff.

Nearly two-thirds of employees at DJRMH are either overweight (39.1%) or obese (24.9%), raising health concerns. Goettler et al. (2017) and Neovius et al. (2015) both highlighted that obesity contributes to reduced productivity, higher absenteeism, and impaired well-being. This trend mirrors national data, with a 56.7% reported in the

Philippines (Degay, 2019).

Table 4.9. *Profile of Respondents in terms of Body Mass Index*

Body Mass Index (BMI)	Frequency	Percentage
Underweight	3	1.5
Normal Weight	68	34.5
Overweight	77	39.1
Obese	49	24.9
Total	197	100

Table 4.10 outlines the blood pressure readings of the employee respondents from Dr. Jose Rizal Memorial Hospital (DJRMH), the vast majority fall within the normal range. Specifically, 155 individuals, accounting for a substantial 78.7% of the total, have normal blood pressure. Among the remaining respondents, 25 individuals (12.7%) are classified as having High Blood Pressure Stage 1, while 8 respondents (4.1%) have High Blood Pressure Stage 2. A smaller group of 9 individuals (4.6%) have elevated blood pressure readings.

Analyzing the blood pressure profile of the DJRMH employees indicates that a significant majority present healthy blood pressure levels. American Heart Association (2023) explains that high blood pressure, also known as hypertension, happens when the force of your blood pushing against the walls of your blood vessels is too high. Accordingly, normal blood pressure is less than 120/80 mm Hg, while elevated blood pressure is 120–129 systolic and less than 80 diastolic. Stage 1 hypertension is defined as 130–139 systolic or 80–89 diastolic, and Stage 2 hypertension as 140 or higher systolic or 90 or higher diastolic. A notable portion of the DJRMH workforce exhibits elevated or high blood pressure stage 1, or stage 2, with a combined percentage of 21.4%. This represents a considerable segment of the employees' population. This prevalence of elevated and high blood pressure could be a potential health concern within the hospital and might be linked to various factors such as age, BMI (as seen in the previous table), lifestyle, and stress levels associated with healthcare work. Monitoring these trends and implementing workplace health programs focused on blood pressure management could be beneficial for the long-term health and well-being of the hospital staff.

This pattern is consistent with a study conducted at a university hospital that found that the overall prevalence of hypertension among employees was 14.8% (Kurtul et al, 2020).

Table 4.10. *Profile of Respondents in terms of Blood Pressure*

Blood Pressure (BP)	Frequency	Percentage
Normal BP	155	78.7
Elevated	9	4.6
High BP Stage 1	25	12.7
High BP Stage 2	8	4.1
Total	197	100

Overall, the findings highlight key workforce characteristics that may influence hospital operations and employee well-being. The dominance of middle-aged, female, and married employees suggests a stable but potentially overburdened workforce, given the physical and emotional demands of healthcare. The high educational attainment aligns with professional healthcare standards, but the socioeconomic distribution (mostly lower-middle class) may indicate modest compensation, warranting further review of salary structures.

The high prevalence of overweight and obesity (64%) raises concerns about employee health, possibly linked to stress, sedentary work, or poor dietary habits, necessitating workplace wellness programs. Generally normal blood pressure levels are positive, though the smaller percentages experiencing elevated BP (4.6%), High BP Stage 1 (12.7%), and High BP Stage 2 (4.1%) still calls for preventive measures. The average 7.6 years of service reflects moderate retention, but the wide range suggests varying levels of experience, which could impact service consistency. These insights can guide human resource policies, health interventions, and support programs to enhance employee productivity and well-being.

Respondents Rate in Terms of Health Beliefs

In this section, the research delves into the health beliefs of the respondents in terms of perceived susceptibility, perceived severity, perceived benefits, perceived barriers, cue to action, and self-efficacy.

Table 5.7 shows DJRMH employees' health beliefs across the Health Belief Model (HBM) constructs. The highest mean score (4.77) is for **perceived benefits**, indicating strong agreement with the advantages of healthy behaviors. Other constructs like **perceived severity** (4.45), **cues to action** (4.36), **perceived susceptibility** (4.27), and **self-efficacy** (4.28) also show strong agreement, suggesting a positive outlook on health and confidence in adopting healthy habits. However, **perceived barriers** scored lower (3.43), reflecting moderate acknowledgment of obstacles. The overall grand mean of 4.26 recommends a generally positive health belief orientation.

Analyzing this summary of health beliefs reveals a potentially favorable context for health promotion initiatives within DJRMH. The employees generally perceive themselves as susceptible to serious chronic diseases, recognize the significant benefits of healthy behaviors, and feel confident in their ability to adopt these habits. Furthermore, they acknowledge the presence of cues to action that motivate healthy living, and while they perceive some barriers, these are not seen as insurmountable. The strong agreement with perceived benefits, coupled with a reasonable level of self-efficacy, suggests a good foundation for encouraging positive behavior change.

Health promotion strategies could leverage these existing beliefs by reinforcing perceived benefits, offering effective cues to action, and addressing identified barriers with practical solutions and support. The study by Parkinson et al. (2020) concluded that patients are significantly more likely to engage in health coaching when referred by a physician.

Furthermore, it was noted that 64% of employees are overweight or obese. This insight is crucial for designing preventive health strategies aimed at reducing chronic disease risks, improving workforce well-being, and increasing productivity within the hospital setting.

Table 5.7. *Summary of Respondents' Health Beliefs*

Health Beliefs	Mean	SD	Description	Interpretation
Perceived Susceptibility	4.27	1.03	Strongly Agree	Strongly reflects my beliefs
Perceived Severity	4.45	0.93	Strongly Agree	Strongly reflects my beliefs
Perceived Benefits	4.77	0.72	Strongly Agree	Strongly reflects my beliefs
Perceived Barriers	3.43	1.22	Slightly Agree	Mostly reflects my beliefs
Cues to Action	4.36	0.78	Strongly Agree	Strongly reflects my beliefs
Self-Efficacy	4.28	0.78	Strongly Agree	Strongly reflects my beliefs
Grand Mean	4.26	0.91	Strongly Agree	Strongly reflects my beliefs

Wellness Behaviors on Non-Communicable Disease

This section addresses the wellness behaviors on non-communicable disease among DJRMH employees in terms of preventive health practices, dietary habits, physical activity and sedentary behavior, substance use and addiction, sleep and rest, mental and emotional health, and non-adherence to medical advice.

Table 6.8 provides a consolidated overview of the DJRMH employee respondents' wellness behaviors across the seven domains assessed. Looking at the interpretations of the mean scores for each category, we see a mixed landscape of health practices. Preventive health practices and substance use stand out as behaviors that are, on average, consistently demonstrated ("Always"). In contrast, physical activity and sedentary behavior, as well as sleep and rest, are seldom demonstrated ("Seldom"). Dietary habits, mental and emotional health, and non-adherence to medical advice fall into the "Occasionally" demonstrated category. The overall grand mean of 2.86 suggests that, when considering all these wellness behaviors collectively, the respondents occasionally demonstrate healthy practices.

The DJRMH workforce demonstrates strengths in preventive health practices, but concerns remain. Substance use, low physical activity, and poor sleep habits require attention. While dietary habits, mental health, and adherence to medical advice show some consistency, improvements are needed. A comprehensive wellness program could address these challenges and promote healthier behaviors.

Table 6.8. *Summary of Respondents' Wellness Behaviors*

Wellness Behaviors	Mean	SD	Description	Interpretation
Preventive Health Practices	3.64	0.73	Always	Consistently demonstrates behavior
Dietary Habits	2.49	0.84	Occasionally	Occasionally demonstrates behavior
Physical Activity and Sedentary Behavior	2.24	0.86	Seldom	Seldom demonstrates behavior
Substance Use	3.71	0.61	Always	Consistently demonstrates behavior
Sleep and Rest	2.01	0.87	Seldom	Seldom demonstrates behavior
Mental and Emotional Health	3.01	0.72	Occasionally	Occasionally demonstrates behavior
Non-Adherence to Medical Advice	2.90	0.91	Occasionally	Occasionally demonstrates behavior
Grand Mean	2.86	0.79	Occasionally	Occasionally demonstrates behavior

Significant Difference in Health Beliefs when Analyzed According to Profile

In this section, the research delves into the significant difference in health beliefs when analyzed according to profile.

Table 7.7. *Summary of the Test of Difference in Respondents' Health Beliefs According to Profile*

Profile	Health Beliefs					
	Perceived Susceptibility	Perceived Severity	Perceived Benefits	Perceived Barriers	Cues to Action	Self-Efficacy
Age	NS	Sig	Sig	NS	NS	NS
Gender	NS	NS	NS	NS	NS	NS
Socio-economic Status	Hi Sig	NS	Hi Sig	Sig	NS	NS
Religion	NS	NS	NS	NS	NS	NS
Educational Attainment	Sig	NS	NS	NS	NS	NS
Marital Status	NS	NS	NS	NS	NS	NS
Designation	Sig	NS	NS	NS	NS	NS
Years in Service	NS	NS	NS	NS	NS	NS
Body Mass Index	NS	NS	NS	NS	NS	NS
Blood Pressure	NS	NS	NS	NS	NS	NS

Table 7.7 highlights key demographic factors shaping health beliefs among DJRMH employees. The analysis reveals that age significantly influences perceived severity and perceived benefits. Socioeconomic status shows highly significant differences in perceived susceptibility and perceived benefits, and a significant difference in perceived barriers. Educational attainment and designation both significantly influence perceived susceptibility. In contrast, gender, religion, marital status, years in service, body mass index, and blood pressure did not show significant differences in any of the health belief constructs.

The analysis of this summary table highlights specific demographic factors that appear to shape health beliefs among the DJRMH employees. Age influences how serious they perceive chronic diseases to be and the value they place on healthy habits. Socioeconomic status appears to be a particularly influential factor, affecting their sense of vulnerability to chronic diseases, their appreciation of the benefits of healthy behaviors, and the obstacles they perceive in adopting these behaviors. Educational attainment and job designation also play a role in shaping their perceived susceptibility to chronic diseases. However, other demographic and health factors showed no significant differences in health beliefs, suggesting general consistency across groups.These findings underscore the importance of considering age, socioeconomic status, educational attainment, and job designation when designing targeted health promotion interventions to address the specific beliefs and potential motivations of different employee subgroups within DJRMH.

These findings emphasize the need to tailor health promotion interventions based on age, socioeconomic status, education, and job designation to address specific employee beliefs and motivations (Gautam et al., 2023).

Significant Difference in Respondents' Wellness Behaviors According to Profile

In this part, the research explores the significant difference in respondents' wellness behavior according to profile.

Table 8.8. Summary of the Test of Difference in Respondents' Wellness Behaviors on Non-Communicable Diseases According to Profile

Profile	Wellness Behaviors						
	Preventive Health Practices	Dietary Habits	Physical Activity & Sedentary Behavior	Substance Use	Sleep & Rest	Mental & Emo-tional Health	Non-Adherence to Medical Advice
Age	NS	Hi Sig	NS	NS	NS	NS	NS
Gender	NS	NS	Hi Sig	Hi Sig	NS	NS	NS
Socio-economic Status	NS	NS	NS	Hi Sig	Hi Sig	NS	NS

Religion	NS	NS	NS	NS	NS	NS	NS
Educational Attainment	NS	NS	NS	Hi Sig	Sig	NS	Sig
Marital Status	NS	NS	NS	NS	NS	NS	NS
Designation	NS	NS	NS	Hi Sig	NS	NS	NS
Years in Service	Hi Sig	Hi Sig	NS	NS	NS	NS	NS
Body Mass Index	NS	NS	NS	NS	NS	NS	NS
Blood Pressure	NS	NS	NS	Hi Sig	NS	NS	NS

Note: H_0: There is no significant difference in the employees' health beliefs when analyzed according to profile.
Note: $p < 0.01$ (Highly Significant); $p < 0.05$ (Significant); $p > 0.05$ (Not Significant)

Looking at Table 8.8, we find a consolidated summary of the statistical tests examining differences in the respondents' wellness behaviors across various profile characteristics. The table indicates whether the differences in each of the seven wellness behavior domains are not significant (NS), significant (Sig), or highly significant (Hi Sig) for each profile variable. The analysis reveals that age has a highly significant influence on dietary habits and a significant influence on preventive health practices. Gender shows highly significant differences in both physical activity and sedentary behavior, as well as substance use. Socioeconomic status has a highly significant impact on substance use and sleep and rest. Educational attainment shows a highly significant difference in substance use and significant differences in sleep and rest, as well as non-adherence to medical advice. Designation has a highly significant influence on substance use. Years in service show highly significant differences in both preventive health practices and dietary habits. Finally, blood pressure shows a significant difference in substance use. Religion, marital status, and body mass index did not show significant differences in any of the wellness behavior domains. Mental and emotional health also did not show significant differences across any of the profile variables examined.

The analysis of this summary table highlights specific demographic and health factors that appear to shape the wellness behaviors of the DJRMH employees. Age and years in service are notable factors influencing both dietary habits and preventive health practices. Gender and socioeconomic status emerge as particularly influential across multiple domains, including physical activity and sedentary behavior, substance use, and even sleep and rest. Educational attainment also plays a significant role in substance use, sleep habits, and adherence to medical advice. The significant impact of job designation on substance use is also noteworthy. These findings underscore the importance of considering these specific profile characteristics when designing targeted wellness interventions to address the unique needs and behaviors of different employee subgroups within DJRMH. The lack of significant differences for certain profiles and wellness behaviors suggests that more universal approaches might be suitable for those areas.

These findings underscore the importance of considering these specific profile characteristics when designing targeted wellness interventions to address the unique needs and behaviors of different employee subgroups within DJRMH. The lack of significant differences for certain profiles and wellness behaviors suggests that more universal approaches might be suitable for those areas.

Accordingly, employees are said to adopt better eating habits and preventive health measures the longer they stay there (Choi et al., 2019). Age-based differences in health choices are commonly linked to varying levels of health priorities, lifestyle preferences, and nutritional knowledge across generations.

Gender disparities in physical activity and substance use align with broader societal trends, where men and women often exhibit divergent health behaviors. Based on the results**,** a person's financial situation plays a huge role in their substance use habits and sleeps qualities ultimately influencing how they handle stress and cope with challenges**.** The study of Jackowska et al. (2014) in Germany found out that those individuals with higher socioeconomic status reported better sleep quality compared to those with lower socioeconomic status. Their study further suggests that anxiety, depression, and overall health problems—more common among lower-income groups—help explain why people with lower socioeconomic status tend to have poorer sleep quality**.** Thus, these mental and physical health issues act as a link between financial struggles and sleep problems. In addition, Lee et al. (2021) concluded in their study that there is a significant mediating role for depressive symptoms between socioeconomic status levels and longitudinal sleep quality that call for consideration among mental healthcare professionals.

Meanwhile, educational attainment's impact on substance use, sleep, and medical adherence implies that health literacy and access to resources shape behavior. The study of Jackowska et al. (2014) further found that individuals with higher educational attainment reported better sleep quality compared to those with lower education levels. This relationship is partially mediated by health literacy, as individuals who have higher education may have better access to information about healthy sleep practices. However, it is interesting to note that despite high levels of health literacy, some healthcare professionals engage in behaviors such as smoking and drinking. For instance, a study conducted by Syed (2020) to examine health and coping behaviors among health care workers, results suggest that 7.7% of survey respondents reported smoking while 43.4% reported alcohol consumption. The significance of designation in substance use suggests job-related stress or cultural norms within specific roles. The link between blood pressure and substance use further emphasizes how health status may influence—or be influenced by—lifestyle choices. These results demonstrate that wellness behaviors are not uniform but are instead mediated by intersecting personal and professional factors.

Significant Relationships between Health Beliefs and Wellness Behaviors on NCDs

In this section, the research delves into the significant relationship between health beliefs and wellness behaviors on non-communicable diseases.

Table 9.7. *Summary of the Test of CorrelationBetween Respondents' Health Beliefs and Wellness Behaviors on Non-Communicable Diseases*

Wellness Behaviors	Health Beliefs					
	Perceived Susceptibility	Perceived Severity	Perceived Benefits	Perceived Barriers	Cues to Action	Self-Efficacy
Preventive Health Practices	NS	NS	NS	NS	NS	NS
Dietary Habits	NS	NS	NS	Hi Sig	Sig	Hi Sig
Physical Activity and Sedentary Behavior	Sig	Sig	NS	Hi Sig	NS	NS
Substance Use	Hi Sig	Sig	Hi Sig	Hi Sig	Sig	NS
Sleep and Rest	Hi Sig	Hi Sig	NS	Hi Sig	NS	Hi Sig
Mental and Emotional Health	NS	NS	Sig	Hi Sig	Hi Sig	Hi Sig
Non-Adherence to Medical Advice	NS	NS	Sig	Hi Sig	Sig	Hi Sig

Looking at Table 9.7, we find a consolidated summary of the Spearman's rho correlation tests between the DJRMH employee respondents' health beliefs and their various wellness behaviors. The analysis reveals several notable patterns. Perceived barriers show highly significant positive correlations with dietary habits, physical activity and sedentary behavior, substance use, sleep and rest, mental and emotional health, and non-adherence to medical advice. Self-efficacy also exhibits highly significant positive correlations with dietary habits, sleep and rest, mental and emotional health, and non-adherence to medical advice. Cues to action have significant positive correlations with dietary habits, substance use, and non-adherence to medical advice, and a highly significant positive correlation with mental and emotional health. Perceived susceptibility and perceived severity show significant correlations with physical activity and sedentary behavior, substance use, and sleep and rest. Perceived benefits show significant positive correlations with substance use, mental and emotional health, and non-adherence to medical advice. Notably, preventive health practices consistently show no significant correlation with any of the health belief constructs.

The analysis of this summary table highlights the complex relationships between health beliefs and wellness behaviors among the DJRMH employees. The strong positive

correlations between perceived barriers and a range of unhealthy behaviors underscore the critical role of addressing these obstacles in promoting wellness. Similarly, the positive associations between self-efficacy and several positive health behaviors (diet, sleep, mental health) suggest that boosting employees' confidence in their ability to adopt healthy habits is crucial. The unexpected positive correlations of perceived benefits and cues to action with some less healthy behaviors warrant further exploration to understand the underlying mechanisms. The lack of correlation between health beliefs and preventive health practices is also an interesting finding that suggests other factors might drive engagement in these behaviors. Overall, this summary provides valuable insights for designing targeted interventions that consider the interplay between employees' beliefs and their health-related actions across different wellness domains.

Proposed Health Intervention Program

Based on the results of the study, a Comprehensive Health Intervention Program is recommended designed to promote the well-being of Dr. Jose Rizal Memorial Hospital employees. Addressing the prevalent non-communicable disease risk factors will lead towards a more health conscious culture among its employees. Rooted in the hospital's commitment to align with national health goals, this initiative will target modifiable behaviors influencing obesity, hypertension, smoking, alcohol consumption, physical inactivity, poor nutrition, and mental health. This program is based on data gathered through employee profiling and behavioral assessments, revealing significant needs among middle-aged, lower-middle-class, and predominantly female staff.

Using a multi-component methodology, the program combines education, regular health monitoring, lifestyle modification support, and behavioral change strategies. Activities include fitness sessions, weight loss challenges, blood pressure monitoring, smoking cessation advocacies, alcohol reduction counseling, nutrition education, and mental health support. Implemented collaboratively, the intervention aims to measurably improve employee health outcomes through targeted, sustainable actions.

Conclusions

This study highlighted the complex interplay between health beliefs and wellness behaviors among Dr. Jose Rizal Memorial Hospital employees, using the Health Belief Model (HBM) as a guiding framework. While the workforce demonstrated strong awareness of chronic diseases and recognized the benefits of healthy living, many still struggled with behavioral consistency—particularly in areas like diet, physical activity, substance use, and emotional health. The demographic profile, largely composed of middle-aged, lower-middle-income, predominantly female staff, reflected certain vulnerabilities, including high rates of overweight, obesity, and elevated blood pressure. Health behaviors were significantly influenced by factors such as socioeconomic status, education, age, gender, and job role, emphasizing the need for targeted and inclusive wellness programs. Interestingly, preventive health practices were commonly observed but did not strongly correlate with health beliefs, suggesting the presence of external influences such as time constraints and personal habits. Perceived barriers, self-efficacy, and cues to

action emerged as key predictors of behavior, reinforcing the importance of addressing these areas in any health intervention. Overall, while behavioral gaps were evident, the study affirms that HBM is partially applicable. It effectively explains some health behaviors but not all, suggesting it remains a valuable yet incomplete tool for understanding and guiding wellness initiatives within the workplace.

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Disclosure: Use of AI Tools

In compliance with Threshold's guidelines for the ethical use of artificial intelligence (AI) and automated tools in academic research, the authors disclose the use of OpenAI's ChatGPT and Microsoft Copilotfor enhancing the quality and clarity of the manuscript. The AI tools were utilized to assist in refining the language, structure, and formatting of the text, ensuring a high level of academic rigor and coherence. The authors confirm that all data analysis, critical interpretations, and conclusions presented in this manuscript were conducted independently. The AI tools were employed strictly for editorial assistance and did not influence the scientific content or ethical considerations of the study. All intellectual contributions from the AI tool are in accordance with the author's original intentions and have been reviewed and approved by all co-authors. The use of ChatGPT complies with Threshold's ethical standards and guidelines for transparent reporting of AI involvement in research. The authors remain fully responsible for the integrity and accuracy of the content presented in this paper.

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