Mental Well-being of Mothers Working in Public Healthcare in Davao Region

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Abstract

This paper delves into the mental well-being of mothers employed in public healthcare in the Davao Region, Philippines, against the backdrop of existing policies aimed at supporting their mental health. Despite legislative measures, incongruences in policy implementation persist, potentially contributing to stress and burnout among healthcare workers. The study seeks to address this gap by gathering baseline data in local settings to inform targeted policy amendments. The primary objectives are to assess the perceived stress level, burnout level, and adaptive coping strategies of mothers working in public healthcare.

Using a quantitative approach, 34 mothers aged 18 to 60, currently employed in public hospitals in Davao del Norte, Davao de Oro, and Davao Oriental, participated in a 2-week survey. Findings reveal a moderate stress level, with no significant differences based on demographic variables. Burnout scores indicate moderate emotional exhaustion, depersonalization, and high personal accomplishment. Problem-focused coping strategies are predominantly employed, with sleep duration influencing coping strategies significantly. Notably, a significant positive correlation between burnout and stress, and a significant negative correlation between burnout and coping were observed. Stress and adaptive coping emerged as significant predictors of burnout, collectively explaining a substantial amount of variance. These results underscore the importance of tailored interventions and policy adjustments to enhance the mental well-being of mothers in public healthcare in the Davao Region.

Keywords: Mental well-being; Mothers; Public healthcare; Perceived stress

Introduction

Mental health is an important but usually neglected topic in healthcare. Burnout is one factor that must be addressed. There is already a high prevalence of burnout among professionals with high work demands in developed and developing countries. Burnout can negatively affect an individual's work performance. It also has an impact on the mental and physical health of an individual. Burnout was formally recognized by the World Health Organization (WHO) as an occupational phenomenon and was added to the ICD-11, the 11th edition of the International Classification of Diseases.

A systematic review and meta-analysis published in 2020 found a weighted mean prevalence of burnout of 49.6% among healthcare workers globally. Lowered patient satisfaction and recuperation times as well as an increase in medical errors are all related to burnt-out doctors [1]. Another meta-analysis that included studies from various countries reported a pooled prevalence rate of 41.9% for burnout among physicians [2].

More than 50% of doctors and nurses in Asian intensive care units reported feeling professionally burned out, according to studies. Stress and potential depression were positively correlated with burnout among Asian ICU doctors and nurses. Burnout was also linked to a decline in nurses' cautious adherence to following treatment protocols, which could ultimately result in worse patient outcomes. Understanding physician burnout is important because of its consequences for both the doctor and the patient. Burnout is linked to an increase in otherwise avoidable medical errors, a decrease in professional work effort, a decrease in patient satisfaction, a lengthening of recovery times, and a higher rate of in-hospital mortality. Determining the causes of burnout and how to prevent it will ultimately be

helpful for the welfare of both doctors and patients [3].

Understanding burnout is important because of its consequences for both the health worker and the patient. Burnout is linked to an increase in medical errors that could have been avoided, a decrease in professional job effort, a decrease in patient satisfaction, a delay in recovery, and a rise in in-hospital death rates. The welfare of both health workers and patients will ultimately benefit from identifying sources of burnout and learning how to prevent it.

In the Philippines, a study conducted revealed that female respondents had worse mean scores in all three components of burnout than males, with exhaustion reaching statistical significance, female respondents had lower mean ratings than male respondents for each of the three burnout components, with tiredness approaching statistical significance.

Mothers, in particular, are at risk of burnout due to the incredibly heavy burden they carry. Being a mother and a healthcare worker would make a heavier load. A mother working in public healthcare, in a developing country, would push some mothers over the edge. A study published in 2018 found that working mothers in healthcare were more likely to experience burnout than working fathers and non-parents in healthcare. Another

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study from the same year reported that maternity leave policies and support for working mothers were positively associated with lower levels of burnout in female healthcare workers. The demands of balancing work and family responsibilities may contribute to increased burnout risk among healthcare-working mothers.

Reproductive work includes childcare and household chores, while productive work involves paid employment. Community work refers to the social and organizational work women do in their communities. Moser contends that the triple burden of work creates significant time and energy demands on women, which often limits their economic opportunities, restricts their decision-making power, and undermines their health.

In public hospitals, mothers face the challenges of the triple burden of work, compounded by the nature of their work in the healthcare system. According to Sohail, the long working hours, high workload, and inadequate resources in public hospitals add to the burden of working mothers and often lead to exhaustion, stress, and burnout. Mothers who work in public hospitals also face the challenge of balancing their caregiving responsibilities at home with their professional duties, which can create conflicts and add to their overall burden. The triple burden of work affects mothers working in public hospitals by limiting their economic and social opportunities and placing additional strain on them in their dual roles as caregivers and professionals.

While these policies and strategies exist, there may still be a need for further implementation, evaluation, and improvement to ensure the mental well-being of mothers in healthcare is effectively supported. In the local setting, there is incongruence in the policy implementation because the basis of the conceptual framework of these policies may not be appropriate for the local situation. There may still be a high prevalence of stress and burnout among healthcare workers despite the existence of different policies and strategies. Thus, this is where this research comes in. There is a need to gather baseline data in our local settings so that policies may be amended to fit the needs of the locals. Hence, this paper wants to determine the mental well-being of mothers working in public healthcare in Davao Region.

Methods

Data description

The study was conducted in Davao del Norte, Davao de Oro, and Davao Oriental public hospitals (DRMC, DDOPH, and DOPMC). Physicians and medical nurses provided the bulk of the participants. We sent a link to the web-based survey, Google Form, to all working mothers in public health care interested in answering the survey *via* the instant messaging application, Facebook messenger. Consent was secured prior to the completion of the online survey.

A quantitative method approach was utilized using purposive sampling. An anonymous web-based cross-sectional survey using the online platform, Google Form, was used to gather data on demographics, Perceived Stress Scale, Maslach Burnout Inventory, and Brief-COPE Scale, among the study participants.

Data analytic technique

The normality was tested with the Shapiro-Wilk test while the homogeneity was tested with Levene's test. If the data was normal and homogenous, parametric tests, independent t-tests (for 2 groups), and one-way ANOVA (for 3 groups or more), were used to compare the means of the various demographic groups. If not, non-parametric tests, Mann-Whitney U Test (2 groups) and Kruskal-Wallis Test (3 groups) were used. Pearson correlation was used to determine the relationship between stress, burnout, and adaptive coping and test their significance. Multiple regression analysis was used to identify if stress and adaptive coping are significant predictors of burnout. Internal consistency was checked by calculating Crohnbach's A.

Results, Analysis and Discussion

Thirty-four (34) respondents completed the survey. The characteristics of the survey participants are shown in Table 1. The mean age of the participants is 36.62 years with a standard deviation of +1.02. Most participants belonged to the 27 years-34 years age group (50%). The bulk of the participants composed of nurses and physicians (16% and 14% respectively). The majority (55.9%) are of permanent status. The average estimated monthly income is P50147.06+4795.67, but the majority belonged to the 1st bracket (P12k-48k). The majority of the participants have graduated college (52.9%) while the rest have attended postgraduate studies (47.1%). Most (58.8%) work for 40 hours or less per week and the rest is more than 40 hours per week (35.3%), some even reaching more than 80 hours per week (5.9%). Eighty-eight percent (88.2%) had less than 8 hours of sleep every night. For marital status, the majority of mothers are married (70.6%) while 20.6% are single. Lastly, most participants have only 1 or 2 dependents (17% and 10% respectively).

Table 1: Sociodemographic profile of survey participants

Background	(mean+SD) 36.62+1.02	Count	Column n%
Age (years)	27-34	17	50
	35-43	12	35.3
	44-51	5	14.7
Occupation	Physician	14	41.2
	Nurse	16	47.1
	Others	4	11.7
Job status	Permanent	19	55.9
	casual/temporary	5	14.7
	job order/contractual	10	29.4
Estimated monthly income (Pesos)	(mean ± SD) 50147.06±	-	-
	12000-48000	22	64.7
	48001-96000	7	20.6
	96001-120000	5	14.7

Educational attainment	Graduate	18	52.9
	Postgraduate	16	47.1
Number of working hours	40 hours or less	20	58.8
	41 hours-80 hours	12	35.3
	More than 80 hours	2	5.88
Sleep duration	less than 8 hours	30	88.2
	8 hours or more	4	11.8
Marital status	Single	7	20.6
	Married	24	70.6
	Separated	1	2.9
	Widowed	1	2.9
	Others	1	2.9
Number of dependents	1	17	50
	2	10	29.4
	3	3	8.8
	4	4	11.8
Total	-	34	100

Perceived stress

Perceived Stress Scale is a 10-item questionnaire using a 5-point Likert scale that helps measure individual stress levels. Higher scores on the PSS indicate higher perceived stress, with individual scores ranging from 0 to 40 [4]. Increased scores on the PSS indicate increased perceived stress, with individual scores on the scale ranging from 0 to 40. Low perceived stress is defined as scores between 0 and 13, moderate perceived stress as scores between 14 and 26, and high perceived stress as scores between 27 and 40. The mean overall score is 23.03 with a standard deviation of 0.66. This is within the moderate perceived stress (14-26). Unfortunately, its internal consistency for perceived stress was poor, with Cronbach's alpha at 0.57.

As shown in Table 2, the highest mean score overall (31.00) was from the mothers who were working more than 80 hours a week, while the lowest mean score overall (13.75) where from the ones who have complete hours of sleep (8 hours or more). As for the age, there was no significant difference (p=0.392) among the 3 groups, but the group ages 35-43 has the highest mean perceived stress level (23.58). For the occupation, there is no significant difference (p=0.579) among the groups, but nurses have the highest mean score (22.94). Casual or temporary job status has the highest mean score (25.00) among the different job statuses but is not statistically significant (p=0.306). In the estimated monthly income, mothers earning P12000-P48000 have the highest stress level among the 3 groups, but it still is not statistically significant (0.982). For educational attainment, graduate mothers are more stressed than post-graduate mothers but this is not statistically significant (22.39 vs 19.93; p=0.384). For the number of working hours, those who work for more than 80 hours per week are the most

stressed but there is no statistical difference from the other groups (20.20 vs 21.00 vs 31.00; p=0.231). For sleep duration, those who have less than 8 hours sleep are more stressed compared to those who sleep for 8 hours or more but this is not statistically significant (22.23 vs 13.75; p=0.073). For the marital status, widows are more stressed than the rest but not statistically significant (28.00; p=0.679). For the number of dependents, those who have only one dependent are more stressed but are not statistically significant (23.82; p=0.135).

Table 2: Perceived stress scores of respondents by demographic characteristics (n=34)

Background		Mean	SD	p-value
Age	27-34	20.94	9.39	0.392
	35-43	23.58	10.24	-
	44-51	16	2.7	-
Occupation	Physician	19.36	9.11	0.579
	Nurse	22.94	9.85	-
	Others	21	6.78	-
Job Status	Permanent	19.1	8.88	0.306
	Casual/ Temporary	25	8.75	-
	Job order/ Contractual	23.4	9.66	-
Estimated Monthly Income	12000-48000	21.45	9.63	0.982
	48001-96000	20.71	7.78	-
	96001-120000	21	10.68	-
Educational Attainment	Graduate	22.39	8	0.384
	Postgraduate	19.93	10.42	-
Number of Working Hours	40 hours or less	20.3	10	0.231
	41 hours-80 hours	21	7.4	-
	More than 80 hours	31	4.24	-
Sleep Duration	Less than 8 hours	22.23	9.26	0.073
	8 hours or more	13.75	5.19	-
Marital Status	Single	24.71	8.88	0.679
	Married	20.33	9.56	-
	Separated	16	-	-
	Widowed	17	-	-
	Others	28	-	-

Citation: Raneses JMQ (2024) Mental Well-being of Mothers Working in Public Healthcare in Davao Region. J Community Med Health Educ 14:866.

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Number of Dependents	1	23.82	8.95	0.135
	2	18.5	10.33	-
	3	14.67	2.3	-
	4	22	8.04	-
	-	23.03	0.66	-

The data regarding working for more than 80 hours per week is supported by the study done by Hill and colleagues. Working women who put in more than 80 hours a week had higher stress levels than those who put in fewer hours. According to the study, working long hours might result in work-family conflict, which can then raise stress levels. Employers must understand the effects of extended work hours on working mothers and offer support and flexibility to enable them to balance work and family obligations [5]. In addition, there is evidence that suggests 8 hours of sleep can help female healthcare workers feel less stressed. According to a study, healthcare workers who said they slept for less than 6 hours a night had higher stress levels and were more likely to experience burnout than those who said they slept for 8 hours or more. In addition, a study indicated that women with reported sleep durations of fewer than 7 hours had higher levels of perceived stress than those with reported sleep durations of 8 hours or more. In order to lower stress levels and avoid burnout, it is crucial for female healthcare workers to prioritize getting adequate sleep [6]. The study did point out that healthcare professionals have coping techniques to control their stress levels, such as looking for social support and taking part in leisure activities away from the workplace. Overall, the study indicates that even if healthcare employees do suffer stress at work, they are able to control it to some degree [7] (Table 3).

Table 3: Frequency and mean of the three dimensions of burnout

Dimension	Low (%)	Moderate (%)	High (%)	Mean + SD
Emotional exhaustion	7 (20.6)	16 (47.1)	11 (32.4)	21.24 + 1.57 (moderate)
Depersonalization	18 (52.9)	9 (26.5)	7 (20.6)	9.41 + 0.87 (moderate)
Personal accomplishment	1 (2.9)	1 (2.9)	32 (94.1)	17.41 + 1.38 (high)

According to several researches, healthcare personnel report high levels of personal efficacy, moderate depersonalization, and moderate emotional weariness, similar to the data. This could be attributed to a number of things, such as healthcare employees' high levels of job satisfaction and feeling of purpose, as well as their resilience to stress and adversity. Due to the crucial role they play in society and the good effects they have on patients' lives, healthcare personnel may also feel a great feeling of personal accomplishment. But it's crucial to keep in mind that burnout is a complicated problem that can be impacted by a number of things, including workload, conflict at work, faith in institutional isolation procedures, and emotional intelligence. Therefore, while treating burnout among healthcare workers, it is crucial to take these issues into account.

Coping strategies

The Brief COPE Scale is a tool used to assess coping strategies in individuals during stressful situations. It consists of 28 items that measure three overarching coping styles, such as problem-focused, emotion-focused, and avoidant coping. The Brief COPE Scale has been used in various studies to assess coping strategies in different populations, including healthcare workers. Interpretation of the Brief COPE Scale involves analyzing the scores for each coping strategy. Higher scores reflect greater usage of that specific coping mechanism. The scale can be used to identify which coping strategies are most commonly used by individuals and to assess the effectiveness of those strategies in managing stress. In this research, the scores for maladaptive strategies were reversed, and the sum of the scores for each of the three components was used to get the overall coping scores. Higher scores indicate higher levels of coping. problem-focused coping is active coping, using informational support, preparation, and a good frame of mind are some of its characteristics. Emotion-based coping is characterized by the elements of religion, self-blame, humor, acceptance, and emotional support. High or low scores may not always indicate psychological health or illness, but they can be used to help define a respondent's coping mechanisms more broadly. Avoidant coping is characterized by elements of substance use, behavioral disengagement, self-distraction, and denial. A high score denotes an effort to physically or mentally avoid the stressor. Low scores are frequently a sign of effective coping. In this research, maladaptive strategies (avoiding coping and other components of emotion-focused coping) were reversed to get a total coping score [8]. A higher coping score is indicative of adaptive coping. With a Cronbach's alpha of 0.72, it has an acceptable internal consistency for coping.

Relationship of stress, burnout, and coping

In this study, Pearson Correlation and Multiple Regression Analyses were used to examine the relationship between stress, burnout, and coping. In the perceived stress score, the score ranges from 0-40, the higher the score, the higher the perceived stress. In the total burnout score, the score ranges from 0-132, the higher the score, the higher the feeling of burnout. In the coping score, it ranges from 4-112, the higher the score, the more adaptive the coping strategy is.

Several studies used multiple regression analyses to examine the relationship between stress, burnout, and coping strategies. The studies found that coping strategies had a significant correlation with burnout dimensions and workers' perceived competence in the context of managed care (Acker 2010). Coping strategies also had a mediating effect on the relationship between stress and burnout (Vancappel 2021). Moreover, avoidant coping was related to high levels of depressive symp-

toms, burnout, general distress, and daytime sleepiness (Kato 2015). It is important to know the relationship between stress, coping, and burnout because it helps to identify the best coping strategies to prevent burnout. By understanding the factors that contribute to burnout, individuals and organizations can implement targeted interventions to reduce stress and enhance coping skills, thereby improving employee well-being and productivity. Furthermore, this analysis can also help in the development of effective prevention and intervention programs to reduce burnout among mothers working in public healthcare.

Conclusion

The survey was completed by 34 participants. The participants' average age is 36.62 years, with a standard deviation of ± 1.02 years. 50% of the participants were in the 27-34 age range. Nurses and doctors made up the majority of the participants (16% and 14%, respectively). The majority (55.9%) are classified as permanent. The projected average monthly income is P50147.06 ± 4795.67, although most people fall into the first income band (P12k-P48k). The majority of participants (52.9%) hold postgraduate degrees, while the remaining participants (47.1%) are college graduates. The majority (58.8%) work 40 hours or fewer per week, while the remainder (35.3%) work more than 40 hours and 5.9% work more than 80 hours per week. Eighty-eight percent (88.2%) slept for fewer than eight hours each night. The majority of moms (70.6%) are married, compared to 20.6% who are single. The majority of participants (17% and 10%, respectively) only have one or two dependents.

The mean score in perceived stress is 23.03 with a standard deviation of 0.66. This indicates a moderate stress level. There is no significant difference when participants were grouped according to age, occupation, job-status, estimated monthly income, educational attainment, number of working hours, sleep duration, marital status and number of dependents and the mean scores were compared among the subgroups.

For the burnout score, mean score for emotional exhaustion is 21.24 ± 1.57 (moderate), the mean score for depersonalization is 9.41 ± 0.87 (moderate), and the mean score for personal accomplishment is 17.41 ± 1.38 (high). There was no significant difference when participants were grouped according to age, occupation, job-status, estimated monthly income, educational attainment, number of working hours, sleep duration, marital status and number of dependents and the mean scores were compared among the subgroups.

For the coping strategies, mean for problem-focused coping is 3.03 ± 0.122, mean for emotion-focused coping is 2.55 ± 0.091, and mean for avoidant coping is 1.67 ± 0.075. This means that the participants relied most heavily on problem-focused coping strategies. Problem-focused coping is a healthy and effective way of coping. When the participants were grouped according to age, occupation, job-status, estimated monthly income, educational attainment, number of working hours, sleep duration, marital status and number of dependents and the mean scores were compared among the subgroups, only sleep duration has a significant difference (0.024). Participants with less than 8 hours of sleep has a significantly healthier coping strategy than with 8 or more hours.

For the relationship of the three variables, there is a significant positive correlation between burnout and stress (0.842; p ≤ .001), and a significant negative correlation between burnout and coping (-0.337; p=.025).

Lastly, stress and adaptive coping significantly predicts burnout. The predictors (stress and adaptive coping) collectively account for a significant amount of variance in burnout scores (p ≤ .001). Stress in particular account for a significant amount of unique variance in burnout scores (p ≤ .001). Coping alone does not account for a significant amount of unique variance in burnout scores (p ≤ .001).

Declaration of Interest Statement

The authors have no competing interests to declare.

Acknowledgement

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