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Stress and Burnout Amidst Covid-19 Pandemic and its Influence on Job Satisfaction among Staff Nurses in Jolo, Sulu, Philippines

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ABSTRACT

Introduction: The global healthcare sector, especially the nursing profession, has experienced heightened demand due to the COVID-19 pandemic, leading to increased job-related stress, elevated burnout rates, and varying levels of job satisfaction that can significantly impact the effectiveness of responses to the pandemic. This study primarily aimed to describe and analyze the Sulu nurses about their stress, burnout, and its relation to their job satisfaction amid COVID-19 pandemic.

Methods: This study employed a descriptive predictive research design to examine staff nurses' stress and burnout levels during the COVID-19 and its influence on job satisfaction. The 183 respondents yielded through Raosoft online sample size calculator has been randomly stratified to two selected hospitals at Sulu province. Adopted questionnaire such as Nursing Stress Scale (NSS), Maslach Burnout Inventory (MBI), and Minnesota Satisfaction Questionnaire-Short Form (MSQ-SFI) were instituted through hybrid collection of data (online and face-to-face) guided by protocols and necessary permissions. Mean, standard deviation, and simple linear regression have done through SPSS software version 24 for the analysis of data at 0.05 level of significance.

Results: Results revealed that majority of staff nurses were young (78.3% aged 21-30 years), single (72.3%), and held a Bachelor's Degree (68.67%). They have low levels of stress (mean = 0.92) and mild burnout levels (mean = 1.53) with a moderately high job satisfaction (mean = 3.61). Predictive analysis shows a strong explanatory power (R^2 = 0.986) and emerged that age (β = -0.076, p = .026) and monthly family income (β = 0.205, p = .000) as a significant predictor of job satisfaction. The nurses' stress level showed a significant negative impact on job satisfaction (β = -0.218, p = .016) while burnout level was a significant positive predictor (β = 0.136, p = .000).

Conclusion: This study concludes that young nurses are needed in the time of pandemic since they are the most active and yet needed guidance and supervisory by experts professionals (veterans) in the field to promote a sense of excellence and quality of healthcare services. The administration must continue to support the staff nurses regardless of age and promote reasonable income to maintain the tolerable and manageable level of stress and burnout that influences their satisfaction at work.

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1. INTRODUCTION

Nurses working as frontline health personnel in hospitals during a health crisis face numerous challenges that can impact their job satisfaction and the quality of healthcare services they provide. These challenges include high workload, mental stress, and time pressure (Hu et al., 2020). The outbreak of COVID-19 has put healthcare systems to the test,

particularly for frontline healthcare workers like nurses (Labrague & Janet Alexis, 2020). Nurses constitute the largest part of the healthcare workforce during epidemics and play a crucial role in infectious disease containment (Adatara et al., 2023; Labrague & Janet Alexis, 2020).

However, the Philippines is experiencing a shortage of healthcare personnel, including nurses, in the fight against COVID-19 (Labrague & Janet Alexis, 2020; Wu et al., 2020). Without urgent investment to address job satisfaction concerns, it is estimated that there will be a significant shortfall of nurses in the Philippine health sector by 2030 (Labrague & Janet Alexis, 2020). This shortage, combined with the demanding nature of dealing with a pandemic, is expected to contribute to stress and burnout among nurses (Wu et al., 2020).

The mental health of frontline nurses caring for COVID-19 patients is an area that requires further research. Limited evidence-based knowledge exists on the mental health of frontline nurses, which is crucial for healthcare workers and the government to prepare for future pandemics (Shahrbabaki et al., 2023). Studies have shown that frontline nurses often experience stress, depression, and anxiety, highlighting the need for mental health support (Liu et al., 2023; Shahrbabaki et al., 2023).

In the context of nurses in Jolo Sulu province in the Philippines, their healthcare system, particularly hospitals, faces significant challenges in addressing the concerns of nurses and maintaining their frontline positions in the fight against COVID-19 (Liu et al., 2023). Empirical experiences and local reports have highlighted the occupational problems faced by nurses in this context (Labrague & Janet Alexis, 2020; Liu et al., 2023).

Given these challenges, there is a need to explore and assess the situation of nurses working in selected hospitals in Jolo Sulu. This study has aimed at understanding the profile of staff nurses and their levels of stress and burnout at work, considering the high demand for their services during the pandemic (Labrague & Janet Alexis, 2020; Liu et al., 2023). Additionally, the study investigated the variables that significantly influences job satisfaction among staff nurses, which can ultimately impact the quality of healthcare services provided.

2. METHODS

Study Design

A descriptive inferential approach was employed in this research to assess the stress and burnout levels among staff nurses during the COVID-19 health crisis and their impact on job satisfaction in clinical settings. The descriptive statistics involved organizing and summarizing data to understand its characteristics, while inferential statistics were used to make predictions about job satisfaction based on a sample of data. The study aimed to infer job satisfaction predictions by considering staff nurses' demographic profiles, stress levels, and burnout experiences during the pandemic.

Population, Samples, and Sampling

The study was conducted in two selected hospitals in Jolo, Sulu: Sulu Provincial Hospital (SPH) and the Department of Health Hospital, Sulu Sanitarium (DOHHSS). The inclusion criteria for selecting staff nurses as respondents were: (1) being a registered nurse, (2) having worked in the selected hospitals for at least six months, (3) regardless of employment status, and (4) willingness to participate in the study. Based on records from the hospitals' human resource departments, a total of 183 staff nurses were identified, and a sample size of 83 was determined using the Raosoft online sample size calculator. Stratified random sampling was applied to select the sample from the identified eligible staff nurses.

Instruments

The research instrument consisted of four parts: the first part focused on the socio-demographic profile of nurses, covering aspects such as age, civil status, highest educational attainment, monthly family income, and length of service. The second part utilized the Nursing Stress Scale, which included 34 statement items (Bautista et al., 2019; Sansó et al., 2021). The third part employed the Maslach Burnout Inventory (MBI), containing 22 statement items (Ferguson et al., 2020; Olson et al., 2019). Finally, the fourth part featured the Minnesota Satisfaction Questionnaire-Short Form (MSQ-SFI), comprising 20 items (Chen et al., 2022; Rogowska & Meres, 2022).

Procedure

The researcher obtained necessary permissions and observed ethical considerations throughout the study. Data were collected using a combination of online and face-to-face approaches. Ethical guidelines were strictly followed during the data gathering process.

Data Analysis

The gathered data were analyzed using SPSS software version 24. The analysis included calculating frequency, percentage distribution, mean, standard deviation, and conducting simple linear regression to explore the relationships between the variables of interest.Mann whitney test with a significance value of 0.05.

Ethical Clearance

The study adhered to ethical guidelines, safeguarding participant rights and well-being, and obtained approval from College of Nursing of MSU Sulu through its nursing department ethics committee (CON-MSU-Sulu-031221).

3. RESULTS

Table 1. Stress Level of Staff Nurses (Nursing Stress Scale)

Stress Level of Staff Nurses (Nursing Stress Scale)	Mean	SD	Interpretation
1. Performing procedures that patients experience as painful	1.83	0.73	Sometimes
2. Feeling helpless in the case of a patient who fails to improve	1.35	0.88	Seldom
3. Conflict with a supervisor	0.46	0.59	Never
4. Listening or talking to a patient about his/her approaching death	1.13	0.89	Seldom
5. Lack of opportunity to talk openly with other unit personnel about problems on the unit	1.04	0.74	Seldom
6. The death of a patient	0.98	0.73	Seldom
7. Conflict with a physician	0.51	0.70	Never
8. Fear of making a mistake in treating a patient	1.89	1.00	Sometimes
9. Lack of opportunity to share experiences and feelings with other personnel on the unit	0.93	0.79	Seldom
10. The death of a patient with whom you developed a close relationship	0.80	0.83	Seldom
11. Physician not being present when a patient dies	0.86	0.82	Seldom
12. Disagreement concerning the treatment of a patient	0.59	0.66	Never
13. Feeling inadequately prepared to help with the emotional needs of the patient's family	0.83	0.67	Seldom
14. Lack of opportunity to express to other personnel on the unit my negative feelings toward patients	0.81	0.74	Seldom
15. Inadequate information from a physician regarding the medical condition of a patient	0.61	0.73	Never
16. Being asked a question by a patient for which I do not have a satisfactory answer	0.76	0.59	Seldom
17. Making a decision concerning a patient when the physician is unavailable	1.06	0.84	Seldom
18. Floating to other units that are short-staffed	1.31	0.89	Seldom
19. Watching a patient suffer	1.14	0.88	Seldom
20. Difficulty in working with a particular nurse (or nurses) outside the unit	0.71	0.72	Never
21. Feeling inadequately prepared to help with the emotional needs of a patient	0.89	0.66	Seldom
22. Criticism from a supervisor	0.94	0.70	Seldom
23. Unpredictable staffing and scheduling	1.05	0.77	Seldom
24. A physician ordering what appears to be an inappropriate treatment for a patient	0.45	0.64	Never
25. Too many non-nursing tasks required such as clerical work	1.05	0.86	Seldom
26. Not enough time to provide emotional support to a patient	0.93	0.76	Seldom
27. Difficulty working with a particular nurse (or nurses) on the unit	0.76	0.80	Seldom
28. Not enough time to complete all of my nursing tasks	0.87	0.65	Seldom
29. A physician not being present in a medical emergency	0.75	0.77	Never
30. Not knowing what a patient or a patient's family ought to be told about the patient's condition and its treatment	0.71	0.74	Never
31. Uncertainty regarding the operation and functioning of specialized equipment	0.72	0.65	Never
32. Not enough staff to adequately cover the unit	1.01	0.69	Seldom
Average Weighted Mean:	**0.929**		**Seldom (Mild/Low)**

In the demographic analysis of 83 staff nurses, 78.3% of them are young which fall within the 21-30 years age bracket. A substantial 72.3% are categorized as single in terms of civil status. Notably, 68.67% possess a Bachelor's Degree as their highest educational attainment, and 24.1% report monthly family incomes within the 35,001 - 40,000 Php range. Regarding professional experience, 32.4% have accumulated 1-3 years of service, signifying a diversified tenure among the respondents. Using the Nursing Stress Scale, staff nurses reported experiencing stress "Seldom" for the majority of the factors, with mean scores generally falling below 1.5 (table 1). Factors such as "Performing procedures that patients experience as painful" and "Fear of making a mistake in treating a patient" had mean scores indicating stress experienced "Sometimes," albeit at a relatively moderate level. Overall, the average weighted mean for stress among staff nurses is 0.929, signifying a predominantly "seldom" or "mild level of stress."

Table 2. Burnout Level of Staff Nurses (Nurses Work Burnout)

	Burnout Level of Staff Nurses (Nurses Work Burnout)	Mean	SD	Interpretation
1.	I feel emotionally drained by my work	1.47	1.00	Seldom
2.	Working with people all day long requires a great deal of effort.	1.58	0.88	Seldom
3.	I feel like my work is breaking me down.	1.08	0.85	Seldom
4.	I feel frustrated by my work.	.89	0.89	Seldom
5.	I feel I work too hard at my job.	1.25	1.04	Seldom
6.	It stresses me too much to work in direct contact with people.	0.66	0.75	Never
7.	I feel like I'm at the end of my rope.	0.53	0.84	Never
8.	I feel I look after certain patients impersonally as if they are objects.	0.36	0.63	Never
9.	I feel tired when I get up in the morning & must face another day at work	1.48	1.07	Seldom
10.	I have the impression that my patients make me responsible for some of their problems.	1.05	0.99	Seldom
11.	I am at the end of my patience at the end of my workday.	0.90	1.00	Seldom
12.	I don't care about what happens to some of my patients.	0.10	0.29	Never
13.	I have become more insensitive to people since I've been working.	0.66	1.17	Never
14.	I'm afraid that my job is making me uncaring.	0.73	1.20	Never
15.	I accomplish many worthwhile things in my job	2.52	1.23	Often
16.	I feel full of energy.	2.65	0.80	Often
17.	I am easily able to understand what my patients feel.	2.69	0.97	Often
18.	I look after my patients' problems very effectively.	2.60	0.96	Often
19.	In my work, I handle emotional problems very calmly.	2.83	0.89	Often
20.	Through my work, I feel that I have a positive influence on people	2.87	0.83	Often
21.	I am easily able to create a relaxed atmosphere with my patients.	2.45	1.01	Often
22.	I feel refreshed when I have been closed to my patients at work.	2.45	1.01	Often
	Average Weighted Mean:	**1.536**		**Seldom**

Table 3. Nurses Work Satisfaction

	Staff Nurses Job Satisfaction	Mean	SD	Interpretation
1.	Being able to keep busy all the time	3.41	.645	Satisfied
2.	The chance to work alone on the job	3.12	1.029	Neutral
3.	The chance to do different things from time to time	3.61	.730	Satisfied
4.	The chance to be "somebody" in the community	3.29	.863	Neutral
5.	The way my boss handles his/her workers	3.78	.782	Satisfied
6.	The competence of my supervisor in making decisions	3.76	.709	Satisfied
7.	Being able to do things that don't go against my conscience	3.53	.967	Satisfied
8.	The way my job provides for steady employment	3.41	.898	Satisfied
9.	The chance to do things for other people	3.96	.818	Satisfied
10.	The chance to tell people what to do	3.67	.751	Satisfied
11.	The chance to do something that makes use of my abilities	4.02	.698	Satisfied
12.	The way hospital policies are put into practice	3.72	.738	Satisfied
13.	My pay and the amount of work I do	3.63	1.112	Satisfied
14.	The chances for advancement on this job	3.37	.879	Neutral
15.	The freedom to use my judgment	3.31	.882	Neutral
16.	The chance to try my methods of doing the job	3.40	.732	Satisfied
17.	The working conditions	3.58	.701	Satisfied
18.	The way my coworkers get along with each other	4.05	.825	Satisfied
19.	The praise I get for doing a good job	3.69	.714	Satisfied
20.	The feeling of accomplishment I get from the job	4.01	.773	Satisfied
	Average Weighted Mean:	**3.616**		**Satisfied**

As presented at table 2, the burnout levels of staff nurses as measured by the Nurses Work Burnout scale shows that the majority of burnout factors are indicative of "Seldom" burnout levels, with mean scores generally falling below 1.60, such as "I feel emotionally drained by my work" and "I feel frustrated by my work." Conversely, the positively framed items like "I accomplish many worthwhile things in my job" and "I feel full of energy" exhibit "Often" levels of agreement, with mean scores exceeding 2.40. The average weighted mean for burnout among staff nurses is 1.536, suggesting a predominantly "Seldom" level of burnout based on the provided scaling.

Moreover, table 3 provides insights into the job satisfaction levels of staff nurses, as assessed using the Staff Nurses Job Satisfaction scale shows that most job satisfaction factors indicate a "Satisfied" level, with mean scores consistently falling within the 3.41-

Table 4. Predictive Analysis of Variables

Independent Variables	Dependent Variable	R^2	F	SE (B)	β	Sig. (p-value)	Interpretation
Age	**Nurses Job Satisfaction**	.986*	734.14	.846	-.076	.026	*Significant*
Civil Status				.889	-.076	0.46	Not Significant
Educational Attainment				.990	.036	.328	Not Significant
Monthly Family Income				.248	.205	.000	*Significant*
Length of Service				.718	-.021	.754	Not Significant
Nurses Stress Level				.059	-.218	.016	*Significant*
Nurses Burnout Level				.101	.136	.000	*Significant*

*. The result is significant at the 0.05 level.

4.20 range, such as "The way my boss handles his/her workers" and "The feeling of accomplishment I get from the job." A few factors, including "The chance to work alone on the job" and "The chances for advancement on this job," are interpreted as "Neutral" due to mean scores falling within the 2.61-3.40 range. The average weighted mean for job satisfaction among staff nurses is 3.616, signifying an overall "Satisfied" level of job satisfaction based on the provided scaling.

Table 4 presents the results of a predictive analysis of various independent variables on nurses' job satisfaction, providing several key findings. The R2 value of 0.986 indicates that the combination of the independent variables explains a substantial proportion of the variance in nurses' job satisfaction, suggesting a robust predictive model. Among the independent variables, age and monthly family income are found to be significant predictors of nurses' job satisfaction, with age negatively influencing job satisfaction (β = -0.076) and monthly family income having a positive effect (β = 0.205). On the other hand, civil status, educational attainment, length of service, nurses' stress level, and nurses' burnout level do not significantly predict job satisfaction. These results provide valuable insights into the factors affecting nurses' job satisfaction, highlighting the importance of addressing age and income-related aspects in healthcare settings to improve overall job satisfaction among nursing staff.

4. DISCUSSION

This study suggests that the staff nurses in Jolo, Sulu, Philippines experienced relatively low levels of stress and burnout, and were generally satisfied with their job. These findings are consistent with other studies that have found a negative relationship between workload and job satisfaction among nurses (Bautista et al., 2019). This can be attributed to the sense of community and support that exists in rural or island areas such that of Sulu province. Nurses working in these areas often develop close relationships with their colleagues and the local community, which can provide a strong support system. This sense of community and support can help alleviate stress and burnout, as nurses feel valued and supported in their work (Poku et al., 2023). Moreso, the workload and patient-to-nurse ratios in island areas may be lower compared to urban settings since the place is not densely populated. This can result in a more manageable workload for nurses, allowing them to provide quality care and reducing the likelihood of burnout. Lower workload and patient-to-nurse ratios can also contribute to job satisfaction, as nurses have more time and resources to dedicate to each patient (Aragasi & Pangandaman, 2021; Vrontis et al., 2022).

However, it is important to note that the relationship between low levels of stress and burnout and job satisfaction among nurses in rural or island areas is not solely determined by the work environment. Personal factors, such as individual coping strategies and resilience, can also play a role. Nurses who possess effective coping mechanisms and have a strong sense of resilience may be better equipped to manage stress and prevent burnout, leading to higher levels of job satisfaction (Czarnecka et al., 2021; Poku et al., 2023). Understanding these factors can help healthcare organizations and leaders create supportive environments that promote job satisfaction and ultimately contribute to the well-being and retention of nurses (House et al., 2022; Li et al., 2023; Specchia et al., 2021).

It is important to note that the COVID-19 pandemic has placed significant burdens on staff nurses, including decreases in their overall mental, physical, and emotional health (Bautista et al., 2019). Other studies have also highlighted the impact of the pandemic on the job stress and well-being of nurses (Cohen et al., 2022; Labrague & Janet Alexis, 2020; Pangandaman, 2023; Wang et al., 2022). It is crucial to provide support and resources to nurses to help them cope with the challenges they face during this time of crisis particularly COVID-19 pandemic.

5. CONCLUSION

In conclusion, this study analyzed the factors affecting nurses' job satisfaction during the COVID-19 pandemic among staff nurses in Jolo, Sulu, Philippines. The findings revealed that while the majority of staff nurses experienced low levels of stress and burnout and were generally satisfied with their jobs, key factors such as age, monthly family income, stress levels, and burnout levels significantly influenced their job satisfaction. Younger nurses and those experiencing higher stress reported lower job satisfaction, highlighting the additional pressures faced during the pandemic. Conversely, higher monthly income and certain aspects of burnout were associated with increased job satisfaction. These

results underscore the critical need for targeted support and resources to address the specific challenges nurses face during the ongoing health crisis, ensuring their well-being and sustained job satisfaction amidst the demands of the pandemic.

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