



ORIGINAL ARTICLE

Factors associated with missed nursing care and nurse-assessed quality of care during the COVID-19 pandemic

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Abstract

Background: The coronavirus outbreak has brought unprecedented pressures to many health care systems worldwide, potentially compromising nursing care delivery and overall health care services.

Aims: This study identified factors that contributed to missed nursing care and nurse-assessed quality of care during the coronavirus pandemic.

Methods: This study employed a cross-sectional research design using an online survey. Survey respondents were 295 frontline nurses from the Central Region of the Philippines.

Results: Missed care occurred at a low level, with “adequate patient surveillance” as the most often missed nursing care activity. Hospital facility size, nurse staffing levels, and patient safety culture predicted missed nursing care. Personal protective equipment adequacy, nurse staffing levels, and patient safety culture were identified as predictors of quality of care.

Conclusion: Frontline nurses tended to miss clinical aspects of nursing care during the pandemic. Modifying elements of the work environment, including nurse staffing levels, safety culture, and adequacy of protective equipment, may reduce care compromise and improve the quality of nursing care.

Implications for Nursing Management: By addressing the identified predictors, nurse managers could effectively develop appropriate interventions to support the professional role of nurses and ensure the delivery of complete, safe, and quality nursing care during the pandemic.

KEYWORDS

COVID-19, missed nursing care, nurse staffing, quality of care, safety culture

1 | INTRODUCTION

In recent years, many health care organizations worldwide have confronted numerous challenges (e.g., budget cuts, nursing shortages, and economic crises) that influenced their financial ability to sustain health care services (Catton, 2020), driving them to take

extra measures to ensure appropriate allocation of scarce resources (Durrani, 2016). Some of these measures may have a negative impact on nursing practice and the nursing profession in general, as they may result in the delay, omission, or rationing of some aspects of nursing care to patients (Crowe et al., 2021; Danielis & Mattiussi, 2020).

Alternatively known as “implicitly rationed care,” “unfinished care,” or “care left undone,” missed nursing care represents an important and prominent concern in many health care systems around the world (Jones et al., 2020; Kalisch & Xie, 2014). With a global prevalence rate ranging from 55% to 98% (Jones et al., 2015), missed nursing care often occurs when nurses fail to complete required nursing care tasks due to increased patient care demands, inadequate labour and material resources, or challenges in communication or teamwork among health care teams (Chaboyer et al., 2021). While the type of nursing care, and its intensity, incidence, and causes differs across countries (Blackman et al., 2018; Kalisch & Xie, 2014), many scholars agree that such factors may have a detrimental effect on patient safety outcomes and nursing care quality (Kalánková et al., 2020; Kalisch et al., 2012). Given these adverse outcomes, it is critical to explore and understand variables that could explain why nursing care is missed or compromised in order to assist in the development and implementation of effective strategies to address this issue.

The COVID-19 pandemic, which emerged in China in November 2019, has brought additional challenges to an already highly pressured health care system in many countries. Based on current projections of COVID-19 cases in many parts of the world, the emergence of potentially more transmittable variants, the slow progress of vaccine rollout, and many individuals' noncompliance with health care protocols, this health care crisis is expected to worsen in the near future (Chen & Lu, 2021; Catania et al., 2021). If not addressed, this will lead to increased patient volume and workloads and affect delivery of timely, complete, and safe nursing care (Halcomb et al., 2020; Joo & Liu, 2021; Turale et al., 2020). In a qualitative study by Crowe et al. (2021), nurses expressed not being able to provide patient- and family-centred nursing care due to changes in patient management methods (e.g., clustering care and use of protective gear) and restrictions (e.g., limited patient contact) to prevent the spread of the virus. Given the nature of the infection, nurses were compelled to prioritize nursing care tasks that addressed patients' oxygenation status, positioning to maximize lung expansion, and administration of antibiotics and antiviral drugs, over other nursing care tasks such as the maintenance of personal hygiene, nursing surveillance, and other communication and interaction with patients (Danielis & Mattiussi, 2020).

Psychological issues and mental health concerns such as stress, depression, emotional exhaustion, and anxiety, which were heightened during the pandemic (Gómez-Salgado et al., 2021; Labrague, 2021a, 2021b), may impair nurses' clinical performance and their ability to complete required nursing tasks. Due to fear of contracting the virus, nurses may refrain from closely interacting with their patients, leading to compromise of some aspects of nursing care (Labrague & de los Santos, 2021a). These circumstances are further compounded by the current shortage of qualified nursing staff, with available reports showing an alarming number of nurses who have left or who have indicated an intention to leave their current workplace due to increased threat of the virus and poor working conditions, resulting in a poor nurse–patient ratio (Said & El-Shafei, 2021; Zhang et al., 2021).

Despite evidence of possible compromise of some aspects of nursing care during the height of the coronavirus outbreak (Crowe et al., 2021; Danielis & Mattiussi, 2020), to our knowledge no studies were conducted during the pandemic that examined missed nursing care, overall quality of nursing care, and factors that may influence nurses' intent to omit or complete required nursing tasks during the pandemic. Understanding the factors that contributed to missed nursing care during the pandemic is essential to formulate relevant organizational measures to prevent the recurrence of missed nursing care that may potentially affect the health and well-being of patients.

2 | METHODS

2.1 | Design, sample and settings

This study used a cross-sectional research design and online survey. Participants were nurses from the Central Region of the Philippines who were on the forefront of the fight against the coronavirus disease. This region is composed of 25 private- and 50 government-owned hospitals, with approximately 3000 nurses employed. In the present study, clinical nurses from 14 hospitals (seven government and seven private hospitals) were invited to participate in the study through an online survey. These 14 hospitals were chosen randomly selected from a list of all hospitals in the region consisting of five large-size hospital facility (>250 beds), four medium-size hospital facility (101–250 beds), and five small-size hospital facility (<100 beds). Eligible participants were licensed nurses, presently working as a frontline nurse, with no less than 6 months of work experience in their present organization. Using an online calculator (Soper, 2021), a sample size of 242 was calculated, with an effect size of 0.05, 80% statistical power, and an alpha of 0.05. The online survey was sent to 400 nurses through their official email addresses, and 295 responded.

2.2 | Instrumentation

Three structured questionnaires were included: the Missed Nursing Care Scale (MNCS; Lake et al., 2017), the Safety Climate Scale (SCS; Sexton et al., 2006), and a single-item measure of nursing care quality (Aiken et al., 2017).

The MNCS was used to examine nursing care activities that were missed or omitted by nurses during their previous shift. The scale contained 12 nursing care tasks classified into two domains, clinical nursing care and planning/communication. Nurses responded using a Likert-type scale from 1 (*never*) to 4 (*frequently*), with a higher total mean score representing higher missed nursing care. This scale had excellent criterion and predictive validity (Lake, French, et al., 2020) and an acceptable Cronbach's alpha value of .91 (Labrague et al., 2020).

The 19-item SCS was used to examine nurses' perceptions of their organization's safety climate (Sexton et al., 2006). Nurses responded to statements using a Likert-type scale from 1 (*totally*

disagree) to 5 (*totally agree*). Previous research has established the predictive validity of the scale (Sexton et al., 2006), while its reliability in the present study was found to be optimal, with an internal consistency value of .90.

Nurses appraised the overall quality of nursing care on their present unit using a single-item measure, which was evaluated using a Likert-type scale from 0 (*poor*) to 4 (*excellent*). This measure had an acceptable internal consistency, with Cronbach's α of .80 based on previous research (Aiken et al., 2017).

2.3 | Ethical consideration and data collection

Before collecting data, the research proposal was approved by the Institutional Research Ethics Review Committee of Samar State University (IRERC EA-0012-I). Due to restrictions on face-to-face data collection, the questionnaires were provided as an online survey using Google Forms. The link to the online survey was sent to nurses' official social media or email accounts. The email contained a brief introduction to the study and its purpose and a statement seeking participants' consent. Nurses who agreed to participate were required to click a "proceed" button to access the online survey, while those who chose not to participate were required to click the "I don't want to participate" button. After completing the survey, participants were instructed to click a "submit" button, and an acknowledgement email was sent to their email accounts. To maximize the response rate, potential participants received email reminders every Saturday for 2 months asking them to complete the survey. Participants' anonymity was maintained by not collecting any personal data in the online survey.

2.4 | Data analysis

IBM® SPSS® version 23.0 software was utilized to analyze the data. Nurse characteristics and the mean values of the scales used were quantified using frequencies, means, and standard deviations. Correlations between study variables were identified using inferential statistics, including analysis of variance (ANOVA), independent *t*-tests, and Pearson's *r* correlation coefficient. Significant variables ($p < .05$) were entered into a hierarchical regression model after examining for multicollinearity.

3 | RESULTS

Participants comprised 295 frontline nurses who responded to an online survey. Most participants were female ($n = 220$, 74.5%), not married ($n = 167$, 56.8%), held baccalaureate degrees in nursing ($n = 233$, 79.2%), and worked full time ($n = 266$, 90.3%). Participants' average age was 34.86, and their average experience in the profession and in their current organization was 10.67 and 6.06, respectively. Concerning their perceptions of the adequacy of personal protective

equipment (PPE) in their unit, 77.6% ($n = 229$) agreed that it was *sufficient* or *very sufficient*. Only 52.5% of nurses ($n = 155$) agreed that their units were sufficiently staffed (Table 1).

Among nursing characteristics, bivariate analyses showed that job role and facility size significantly correlated with missed nursing care. Specifically, staff nurses obtained significantly higher mean MNCS scores than nurse managers ($t = 2.406$, $p = .017$). Further, nurses working in large hospital facilities had significantly higher MNCS mean scores than those in small hospital facilities ($F = 2.406$, $p = .017$). Additionally, correlation analysis using the Pearson's *r* correlation coefficient showed that missed nursing care had a significant negative correlation with staffing levels ($r = -.365$, $p = .001$) and safety culture ($r = -.259$, $p = .001$). With regards to nurse-assessed quality of care, three variables yielded significant correlations. PPE adequacy ($r = .346$, $p < .001$), staffing levels ($r = .372$, $p < .001$), and safety culture ($r = .382$, $p < .001$) significantly and positively correlated with nurse-assessed quality of care (Table 1).

Table 2 shows participants' MNCS responses. Items reported to be highly missed were "adequate patient surveillance" ($M = 1.57$, $SD = 0.49$), "comforting/talking with patients" ($M = 1.51$, $SD = 0.57$), and "provision of skin care" ($M = 1.46$, $SD = 0.55$). By contrast, MNCS items that obtained the lowest ratings were "administration of medication on time" ($M = 1.19$, $SD = 0.50$), "educating patients and family" ($M = 1.22$, $SD = 0.60$), and "documenting nursing care" ($M = 1.24$, $SD = 0.67$). Of the two domains, the clinical domain had the higher mean score ($M = 1.38$, $SD = 0.50$). The overall MNCS mean score was 1.35 ($SD = 0.51$).

Variables that significantly correlated with missed nursing care were entered into a hierarchical regression model. Model 1 included job role and hospital facility size, while Model 2 added organization safety culture. For Model 1, regression analysis identified hospital facility size (small hospital facility) ($\beta = -.198$, $p = .004$) and nurse staffing levels ($\beta = -.361$, $p = .001$) as predictors of missed nursing care, explaining 10.3% of the variance. In other words, nurses employed in small hospital facilities tended to report less missed nursing care than those in large hospital facilities. Moreover, nurses who perceived adequate staffing levels tended to report less missed nursing care than those who perceived inadequate staffing levels. After safety culture was entered into Model 2, the total explained variance rose to 15.6%. Hospital facility size ($\beta = -.205$, $p = .003$), nurse staffing levels ($\beta = -.315$, $p = .001$), and safety culture ($\beta = -.226$, $p = .001$) predicted missed nursing care and an additional 5.3% of the variance. In other words, nurses who perceived a more positive safety culture tended to report less missed nursing care (Table 3).

To identify predictors of nurse-assessed quality of care, three significant variables were entered into the model. For Model 1, PPE adequacy and staffing levels were entered, while safety culture was added to Model 2. For Model 1, regression analyses identified PPE adequacy ($\beta = .260$, $p < .001$) and staffing levels ($\beta = .297$, $p < .001$) as predictive variables of nurse-assessed quality of care, accounting for 19.4% of the variance in care quality. In particular, nurses who perceived sufficient PPE and staffing levels in their units tended to report increased quality of care (QoC). An additional 4% of the variance in

TABLE 1 Nurse characteristics and its correlation with missed nursing care and quality of care ($n = 295$)

Variables	Category	Missed nursing care				Quality of care						
		Mean	SD	Test statistic	<i>p</i> value	Mean	SD	Test statistic	<i>p</i> value			
Age				-0.036	.563			0.111	.073			
Years of experience in nursing				0.015	.815			0.077	.216			
Years of experience in the organization				-0.022	.729			0.077	.218			
Gender	1. Male	2.419	1.057	0.598	.551	3.394	0.653	1.617	.107			
	2. Female	2.330	1.007			3.244	0.652					
Marital status	1. Married	2.342	1.041	-0.145	.885	3.330	0.621	1.402	.299			
	2. Unmarried	2.361	1.005			3.245	0.678					
Education	1. BSN	2.372	0.991	0.551	.583	3.293	0.680	0.518	.605			
	2. MSN	2.279	1.127			3.241	0.547					
Job status	1. Fulltime	2.347	1.006	-0.219	.828	3.291	0.649	0.657	.511			
	2. Part time	2.400	1.156			3.200	0.707					
Job role	1. Staff nurse	2.448	1.048	2.406	.017	3.283	0.671	0.055	.956			
	2. Nurse manager	2.136	0.920			3.279	0.619					
Facility size	1. Small	2.129	1.041	4.931	.008							
	2. Medium	2.319	0.839									
	3. Large	2.590	1.082									
Attendance in COVID-19 related trainings	1. Yes	2.311	1.012	-0.705	.481	3.297	0.609	0.400	.690			
	2. No	2.400	1.029			3.265	0.704					
Vaccination status	1. Vaccinated	2.296	0.962	-1.490	.140	3.292	0.661	0.473	.637			
	2. Not vaccinated	2.551	1.187			3.246	0.635					
Personal protective adequacy				-0.014	.825			0.346	<.001			
	1. Very insufficient											
	2. Insufficient											
	3. Sufficient											
	4. Very sufficient											
Staff adequacy				-0.365	.001			0.372	<.001			
										2.967	.033	
	1. Very insufficient	2.811	0.985							1 > 4*		
	2. Insufficient	2.370	0.984									
	3. Sufficient	2.304	0.965									
	4. Very sufficient	2.048	1.222									
Safety culture				-0.259	.001			0.382	<.001			

* $p < .05$.

QoC was explained when safety culture ($\beta = .224$, $p = .001$) was entered into the model, indicating that nurses who perceived a more positive safety culture in their unit tended to report a higher QoC rating (Table 4).

4 | DISCUSSION

Overall, the mean score of the missed nursing care measure was low, suggesting that frontline nurses in the Central Philippines during the

TABLE 2 Responses on the missed nursing care scale and nurse-assessed quality of care

MNC items/domains	Rank	Mean	SD
Nurse-assessed quality of care		3.282	0.654
Missed nursing care		1.353	0.509
Clinical domain		1.378	0.500
Planning domain		1.327	0.532
Adequate patient surveillance	1	1.571	0.490
Comforting/talking with patients	2	1.514	0.573
Skin care	3	1.463	0.554
Ambulation or range of motion	4	1.460	0.539
Oral hygiene	5	1.440	0.587
Developing or updating nursing care plans/care pathways	6	1.398	0.584
Participate in team discussion of patient care	7	1.351	0.598
Preparing patients and families for discharge	8	1.317	0.635
Treatments and procedures	9	1.266	0.640
Pain management	10	1.255	0.596
Coordinate patient care	11	1.251	0.638
Documenting nursing care	12	1.243	0.673
Educating patients and family	13	1.216	0.597
Administering medication on time	14	1.189	0.618

TABLE 3 Hierarchical regression to determine predictors of missed nursing care

Steps and predictors	Model 1					Model 2				
	B	SE	β	t	p	B	SE	β	t	p
1 (Constant)	2.822	0.245		11.529	.001	3.936	0.410		9.592	.001
Reference: Nurse managers										
Staff nurses	0.251	0.135	.114	1.854	.065	0.117	0.139	.053	0.842	.401
Reference: Tertiary										
Primary	-0.423	0.146	-.198	-2.897	.004	-0.437	0.143	-.205	-3.051	.003
Secondary	-0.285	0.153	-.126	-1.856	.065	-0.357	0.152	-.158	-2.347	.050
Staffing adequacy	-0.652	0.107	-.361	-6.070	.001	-0.569	0.113	-.315	-5.042	.001
2 Safety culture						-0.306	0.092	-.226	-3.348	.001
R ²	10.3%					5.3%				
F	8.993					6.398				
p	.001					.001				

TABLE 4 Hierarchical regression to determine predictors of nurse-assessed quality of care

Steps and predictors	Model 1					Model 2				
	B	SE	β	t	p	B	SE	β	t	p
1 (constant)	2.064	0.159		12.989	<.001	1.573	0.206		7.631	<.001
PPE adequacy	0.206	0.046	.260	4.452	<.001	0.156	0.047	.196	3.292	.001
Staffing adequacy	0.231	0.045	.297	5.085	<.001	0.179	0.047	.230	3.839	<.001
2 Safety culture						0.195	0.054	.224	3.628	<.001
R ²	19.4%					4%				
F	32.085					26.795				
p	<.001					<.001				

pandemic had a low tendency to miss vital nursing care tasks. Although to our knowledge no similar studies were conducted during the pandemic, these findings are consistent with studies performed in the prepandemic period (Blackman et al., 2018; Lake, Riman, et al., 2020). However, our mean scores are higher than the results of an earlier study within a similar context (Labrague et al., 2020). Further, the mean score of the quality of care (QoC) measure was likewise low when compared to earlier research (Al Sabei et al., 2020). Although a wide range of factors may have influenced this result (e.g., nurse–patient ratio, staffing levels), compelling evidence suggests that the coronavirus outbreak may have contributed to this finding. Due to fear of contracting the disease or unknowingly infecting their family or loved ones, nearly half the frontline nurses in the country reported being unprepared to manage patients with coronavirus infection (Labrague & de los Santos, 2021a). This lack of readiness or preparedness could reduce the capacity of nurses to provide complete and quality nursing care to their patients. Further, substantial evidence showed a significant deterioration in frontline nurses' mental and psychological health during the pandemic, including increased levels of psychological distress, dysfunctional anxiety, posttraumatic stress, depression, and emotional exhaustion (Gómez-Salgado et al., 2021; Labrague & de los Santos, 2021b). Research has demonstrated that these conditions adversely influence the provision of timely, standard, and quality nursing care (Bautista et al., 2020).

Adequate patient surveillance, defined as the process of identifying threats to patients' health and well-being, is critically important in making clinical decisions related to patient care (Pfrimmer et al., 2017). As the largest group of health care personnel in the hospital, nurses are strategically positioned to identify patients' health threats and other issues related to patient care through adequate patient surveillance (Kelly & Vincent, 2011). Adequate patient surveillance was strongly linked to improved care quality, less care left undone, and reduced adverse patient events (Kutney-Lee et al., 2009), all early signs of patient deterioration (Fasolino & Verdin, 2015), while insufficient patient surveillance was linked to increased failure-to-rescue, patient complications, and deaths. In this study, adequate patient surveillance was found to be highly missed by nurses during the pandemic. Current nurse staffing levels may have contributed to this result, as nearly 50% of frontline nurses perceived insufficient levels of nurse staffing in their assigned wards, resulting in increased nurse–patient ratio and heavy workloads. Supporting this view, evidence has attributed missed nursing care to poor nurse–patient ratio and nurse staffing problems (Jones et al., 2015; Kalisch et al., 2013; Lake, Riman, et al., 2020).

In this study, nurses were found to prioritize nursing care tasks related to planning and communication over nursing care tasks related to the clinical domain. This result differs from an earlier study within the local context (Labrague et al., 2020) in which nurses were reported to prioritize care that addressed the physiological needs of patients, such as care that fell under the clinical domain. Notably, nursing activities related to the clinical domain demand more personal interaction and closer contact with patients (van Belle et al., 2020), which could explain why these nursing tasks were more often missed

during the pandemic given the nature of the disease. Previous reports have suggested that while nurses were generally willing to care for patients with confirmed or suspected coronavirus infection, they lacked the confidence and preparedness to effectively support the nursing care needs of these patients (Wu et al., 2020). These factors, along with increased fear of being infected (Labrague & de los Santos, 2021a), higher levels of job burnout, psychological distress, anxiety disorders, and depression (Gómez-Salgado et al., 2021), could potentially compromise clinical nursing care.

Staff nurses tended to miss nursing care more than nurse managers, although this relationship became nonsignificant in the multiple regression analysis. This result was expected, as staff nurses spend most of their time with patients while nurse managers spend most of their time coordinating unit activities and supervising staff subordinates (Warshawsky & Cramer, 2019). Hospital facility size was also identified as an important predictor of missed nursing care, with nurses who were employed in large hospital facilities reporting more missed nursing care than nurses in small facilities. In the Philippines, most suspected or infected patients are admitted to larger hospital facilities that possess the required technology and resources to address their complex nursing care requirements. Even in normal circumstances, nurses in the country's tertiary hospitals have long been subjected to intense pressure due to higher workloads, higher bed occupancy, and increased patient admission, causing psychological distress and emotional exhaustion (Bautista et al., 2020).

Consistent with the nursing literature (Blume et al., 2021; Kim et al., 2018; Lake, Riman, et al., 2020), this study identified nurse staffing as a main contributor to missed nursing care, with more missed care reported by nurses who perceived poor nurse staffing levels in their assigned units. Accordingly, when a unit lacks the necessary nursing manpower, essential nursing care tasks may not be completed, resulting in “care left undone” or “missed nursing care” (Kalisch & Xie, 2014). Moreover, poor nurse staffing levels may reduce the capacity of nurses to identify potential threats to patients' health and to prevent patient deterioration, resulting in increased mortality rates, hospital length of stay, hospital readmission, and failure to rescue (Blume et al., 2021). Despite the relevance of ensuring an adequate nursing staffing level to prevent adverse patient outcomes, fewer than 50% of nurses in the present study reported adequate staffing in their units. This finding is alarming considering the significant percentage of nurses who have left their work since the pandemic onset and those who have reported intentions to leave their jobs due to fear of the virus and psychological ramifications attributed to ongoing contagion (Said & El-Shafei, 2021). This scenario is exacerbated by the increasing number of frontline nurses who are adversely affected by the virus and/or under quarantine due to possible virus exposure.

PPE is critically important to protect health care workers from injury, disease, or illness when caring for patients with known infectious diseases. In the absence of reliable PPE, health care workers, including nurses, find it very challenging to provide nursing care to their patients due to fear of contracting the disease, leading to some nursing care tasks being neglected or missed (Sheldon, 2019). In this study, the perceived adequacy of PPE strongly predicted missed

nursing care, with nurses who perceived adequate PPE in their unit reporting less missed nursing care. Given the high transmissibility of the virus, the need for reliable and complete PPE is imperative; however, about 30% of frontline nurses in this study reported an inadequate supply of such equipment in their units.

Patient safety culture is acknowledged as a strong precursor of patient safety outcomes (Hessels et al., 2019; Lee & Quinn, 2020); however, limited empirical data are available linking safety culture with missed nursing care. In the present study, safety culture significantly predicted missed nursing care, with nurses who perceived a more positive safety culture reporting less missed nursing care and an increased quality of nursing care. While a substantial number of empirical studies performed in the pre-pandemic period linked safety culture with missed nursing care and quality of care (Hessels et al., 2019; Kim et al., 2018), this research is the first to report such a relationship in the context of the pandemic. Nevertheless, this result supported earlier evidence that identified a hospital's safety culture as a significant precursor of missed nursing care, patient complications, and nursing care quality (Gurková et al., 2020; Kim et al., 2018). Although aspects of safety culture which influence safety outcomes in patients have not been examined in this study, considerable evidence identified patient transition and handover mechanism, staffing, organizational and managerial support, interdisciplinary teamwork, communication mechanisms, and organizational learning/continuous improvement as important precursors of missed nursing care (Hessels et al., 2019; Lee & Quinn, 2020). With the ongoing COVID-19 crisis, some of these safety culture elements could be adversely affected, for instance, staffing levels, which in turn may negatively affect nursing care provision.

5 | STUDY LIMITATIONS

This study has several limitations. First, this study was confined to frontline nurses in two major cities in the country; hence, generalization of the findings may be limited. The use of self-report measures to obtain data on missed nursing care and quality of nursing care could be a potential limitation due to response bias. As such, future studies can benefit from a more rigorous data collection strategy including observation or retrospective review of patient charts. The combined predictive power of the different predictors of missed nursing care and quality of care suggest that other variables may not have been accounted for. Future research exploring other relevant factors (e.g., individual, unit, and organizational factors) that contribute to patient safety outcomes should be conducted. Finally, given the limited evidence relative to this issue, more studies are needed to examine the patterns, intensity, and causes of missed nursing care in other countries during the pandemic.

6 | IMPLICATIONS TO NURSING MANAGEMENT

The findings of the study could guide hospital and nursing management when designing solutions to reduce compromises in nursing care

during the COVID-19 crisis. Periodic assessment of nursing care activities, particularly those in the clinical care domain, are important to ensure that essential nursing care tasks are provided to patients and to monitor aspects of nursing care that require further improvement (Jones et al., 2015).

Nurse staffing, which predicted both missed nursing care and quality of care, is a major concern, especially given the nurse turnover rate during the pandemic and the increasing percentage of nurses who report an intention to leave their work during the pandemic. Hiring additional nurses to increase staffing levels is imperative; however, implementing measures to enhance retention of nurses is equally important. These measures may include providing both monetary and nonmonetary incentives to nurses, implementing flexible work schedules, offering adequate mental health resources, and ensuring favorable work conditions (Lake, Riman, et al., 2020; Schubert et al., 2021). Nurse managers should ensure that nurses are provided with reliable PPE and other supplies needed when caring for coronavirus patients.

Finally, patient safety culture within the unit and the hospital should be harnessed by increasing awareness of nurses regarding safety principles, enhancing teamwork within the unit, improving patients' safety competencies, improving communication mechanisms, and implementing a functional error reporting system (Kim et al., 2018). By creating a "no-blame" work environment and implementing workplace policies that emphasize accountability, transparency, and ethical standards, nurse managers can effectively support nursing practice and prevent any compromise in nursing care (Labrague et al., 2020).

7 | CONCLUSION

The findings of this study showed that the current pandemic crisis can potentially affect the provision of quality nursing care, resulting in missed nursing care and care compromise. Among the different nursing care domains, nursing care activities to address the physiologic health of the patients (e.g., patient surveillance, skin care, and ambulation) were found to be highly missed. Missed nursing care and quality of care during the pandemic were influenced by myriad factors including the hospital facility size, nurse-staffing levels, adequacy of PPE, and hospital safety culture. By addressing these factors, nurse managers can best support the professional role of nurses in the implementation of complete, safe, and quality care during the height of pandemic.

ACKNOWLEDGEMENT

The authors would like to acknowledge and thank all nurses who participated in the study.

CONFLICT OF INTEREST

All authors declare no conflict of interest.

FUNDING INFORMATION

This study is nonfunded.

ETHICAL APPROVAL

This research was approved by the Samar State University Institutional Research Ethics Review Committee (IRERC) (IRERC EA-001-E).

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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How to cite this article: Labrague, L. J., de los Santos, J. A. A., & Fronda, D. C. (2022). Factors associated with missed nursing care and nurse-assessed quality of care during the COVID-19 pandemic. *Journal of Nursing Management*, 30(1), 62–70. <https://doi.org/10.1111/jonm.13483>