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Missed Nursing Care and Job Satisfaction among Filipino Remote Area Nurses in Onshore and Offshore Oil and Gas Field Settings in the Kingdom of Saudi Arabia

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ABSTRACT

This study examined the relationship between missed nursing care and job satisfaction among Filipino remote area nurses working in selected onshore and offshore oil and gas field settings in the Kingdom of Saudi Arabia. Specifically, it assessed demographic and professional characteristics, extent and perceived reasons for missed nursing care, level of job satisfaction, significant group differences, relationships between variables, and predictors of job satisfaction. A quantitative descriptive-correlational, cross-sectional design was employed among 120 Filipino registered nurses selected through purposive and referral-based sampling. Data were collected using a structured questionnaire and analyzed through descriptive and inferential statistics.

Findings revealed a moderate extent of missed nursing care ($M = 2.64$, $SD = 0.59$), particularly in documentation and communication, patient education and health promotion, and referral coordination. Perceived reasons for missed care were rated as moderate ($M = 3.64$, $SD = 0.58$), primarily involving workload, staffing adequacy, and logistical limitations. Respondents reported moderate job satisfaction ($M = 3.39$, $SD = 0.61$), with higher satisfaction in professional autonomy and nature of work and lower satisfaction in workload, scheduling, and compensation. Significant differences were observed according to remote nursing experience, work assignment, work setting, shift pattern, and weekly working hours. Missed nursing care was significantly negatively correlated with job satisfaction ($r = -0.47$, $p < .001$). In the multivariable model, missed nursing care showed the largest standardized negative association with job satisfaction, while remote nursing experience, offshore exposure, work arrangements, and weekly working hours were also statistically associated with satisfaction; these cross-sectional results do not establish cause and effect.

The findings indicate that missed nursing care and job satisfaction were associated in this sample and that several remote-work characteristics were correlated with job satisfaction; no directional or causal effects can be inferred. A Workforce Support Plan focusing on staffing, workload management, scheduling, fatigue prevention, remote clinical support, and professional development was developed to strengthen nursing practice and workforce well-being.

Keywords: missed nursing care, job satisfaction, Filipino nurses, remote area nursing, onshore and offshore nursing, Saudi Arabia

INTRODUCTION

Nurses play a vital role in ensuring safe, continuous, and equitable health care delivery across various health care settings. As the largest occupational group within the global health workforce, nurses contribute significantly to universal health coverage, health promotion, disease prevention, and patient safety.

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However, the nursing profession continues to encounter challenges involving workforce shortages, unequal distribution, migration, increasing workload, stressful working conditions, and growing demands for specialized health services (World Health Organization [WHO], 2025a, 2025b). These challenges may affect the ability of nurses to provide comprehensive and timely care, particularly in geographically isolated environments where human resources, medical equipment, and access to professional support may be limited.

One important concern associated with these workforce challenges is missed nursing care. Missed nursing care refers to required nursing activities that are delayed, partially completed, or omitted during patient care. Kalisch (2009) described missed nursing care as an error of omission that may result from competing clinical demands, resource limitations, and organizational factors.

Similarly, Labrague and Kostovich (2024) highlighted the influence of staffing inadequacies, excessive workload, communication difficulties, and workplace conditions on nursing care omissions. These findings indicate that missed nursing care is not merely an issue of individual nursing performance but may also reflect broader structural and operational challenges within health care organizations.

Missed nursing care has implications not only for patient safety and quality of care but also for nurses' professional experiences and satisfaction. In a systematic review and meta-analysis involving eight studies and 10,418 nurses, Algin et al. (2024) identified a significant negative relationship between missed nursing care and job satisfaction.

This suggests that nurses who frequently experience difficulties completing necessary nursing activities may also report lower satisfaction with their work. Repeated exposure to situations in which expected nursing interventions cannot be completed may contribute to professional frustration, emotional strain, and reduced fulfillment. Consequently, examining missed nursing care alongside job satisfaction provides an important perspective on both health care quality and workforce well-being.

Job satisfaction represents an essential component of nursing workforce sustainability because it reflects nurses' perceptions of their professional responsibilities, workload, work schedules, compensation, supervision, autonomy, interpersonal relationships, professional development, and working conditions. For nurses practicing in specialized and demanding environments, job satisfaction may be influenced by the availability of organizational support, opportunities for independent clinical decision-making, access to professional resources, and the balance between occupational responsibilities and personal well-being. These considerations become particularly relevant among nurses working outside conventional hospital settings, where geographic isolation and limited professional interaction may create additional challenges.

The Kingdom of Saudi Arabia provides an important setting for examining these concerns because its health care workforce includes both Saudi and expatriate nurses. Despite continued health workforce development, challenges associated with nursing workforce distribution, retention, and employment conditions remain relevant (Kattan & Al-Hanawi, 2025; Davies et al., 2025).

Filipino nurses constitute part of the expatriate nursing workforce and contribute to health care delivery across different clinical and occupational settings. Although international employment may provide professional and economic opportunities, expatriate nurses may also encounter challenges involving workload, cultural adjustment, organizational expectations, professional support, and work-life balance (Abou Hashish & Alnajjar, 2025).

Within this context, Filipino nurses assigned to remote onshore and offshore oil and gas field settings represent a specialized nursing population whose professional responsibilities differ from those of nurses working in conventional hospitals. Remote area nurses may provide occupational health assessment, primary health care, emergency response, medication administration, health surveillance, patient education, documentation, and referral coordination.

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These responsibilities often require clinical autonomy, adaptability, critical thinking, and emergency preparedness. Adams et al. (2019) emphasized that professional isolation among remote industrial health workers may influence their experiences of practice, particularly when access to colleagues and specialized professional support is limited.

The operational characteristics of onshore and offshore oil and gas fields may further influence nursing care

delivery. Geographical isolation, smaller health care teams, rotational work arrangements, limited diagnostic resources, transportation difficulties, and restricted access to higher-level medical facilities may affect the timely completion of nursing interventions. Remote clinical consultation and telemedicine may provide additional support, although the availability and effectiveness of these services may vary according to the working environment. In situations involving simultaneous health concerns, competing occupational responsibilities, or emergency situations, remote area nurses may need to prioritize interventions, potentially resulting in delayed or incomplete nursing activities.

Among Filipino remote area nurses, these occupational demands may occur alongside the broader challenges associated with expatriate employment. Working in isolated field environments may involve extended or rotational duty schedules, separation from family, limited social interaction, culturally diverse working relationships, and increased responsibility for maintaining essential health services. Conversely, these assignments may also provide professional independence, specialized clinical experience, financial opportunities, and career development. Such conditions suggest that both missed nursing care and job satisfaction should be examined within the specific realities of remote industrial nursing rather than interpreted solely through findings obtained from conventional hospital settings.

Despite growing international research on missed nursing care and job satisfaction, much of the available evidence has focused on hospital-based nurses and conventional health care environments. Studies involving expatriate nurses in Saudi Arabia have generally examined workforce retention, professional adaptation, organizational support, and employment experiences.

However, limited evidence specifically addresses the relationship between missed nursing care and job satisfaction among Filipino registered nurses assigned to remote onshore and offshore oil and gas field health care settings. Furthermore, the combined influence of staffing, workload, geographical isolation, rotational work arrangements, medical support accessibility, and logistical constraints on these variables remains insufficiently explored within this specialized nursing population.

This research gap is significant because remote area nurses provide essential health services to workers in industrial environments where access to immediate medical assistance may be limited. Identifying the extent of missed nursing care, its perceived contributing factors, and the level of job satisfaction may provide context-specific evidence for strengthening occupational health nursing services, workforce management, and professional support systems. The study also supports Sustainable Development Goal 3, Good Health and Well-Being, through its emphasis on safe and effective nursing care, and Sustainable Development Goal 8, Decent Work and Economic Growth, through its focus on supportive working conditions and workforce well-being.

Therefore, this study examined the relationship between missed nursing care and job satisfaction among Filipino remote area nurses working in selected onshore and offshore oil and gas field settings in the Kingdom of Saudi Arabia. Specifically, it determined the respondents' demographic and professional characteristics, extent of missed nursing care, perceived reasons for missed nursing care, and level of job satisfaction.

It also examined significant differences according to selected demographic and professional variables, assessed the relationship between missed nursing care and job satisfaction, and identified significant predictors of job satisfaction. The findings served as the basis for developing a Workforce Support Plan intended to address care delivery challenges, strengthen workplace support, and promote the professional well-being of Filipino remote area nurses.

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CONCEPTUAL FRAMEWORK

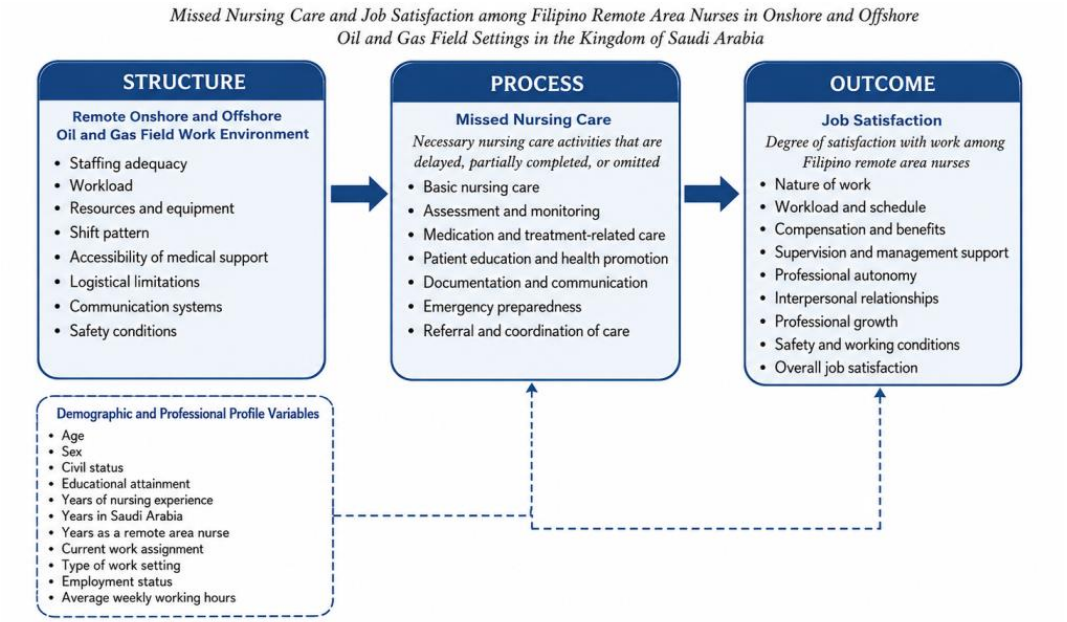


Figure 2: Self-developed Conceptual Framework

This study is conceptually anchored on Donabedian's Structure–Process–Outcome Model, which explains that the quality of care may be understood through the relationship among the conditions where care is provided, the actual process of care delivery, and the outcomes resulting from care. In this study, the model is applied to examine how the remote onshore and offshore oil and gas field setting may influence missed nursing care and how missed nursing care may be associated with job satisfaction among Filipino remote area nurses in the Kingdom of Saudi Arabia.

The structure component refers to the conditions and characteristics of the work environment where Filipino remote area nurses perform their duties. In the present study, this includes the onshore and offshore oil and gas field settings, staffing adequacy, workload, availability of resources and equipment, shift pattern, employment status, weekly working hours, accessibility of medical support, logistical limitations, communication systems, and safety conditions. These structural factors are important because remote area nursing is performed in geographically isolated and operationally demanding environments. Unlike hospital-based nurses, remote field nurses may work with smaller teams, limited immediate access to physicians or specialists, and greater responsibility for emergency response, occupational health services, assessment, monitoring, documentation, referral coordination, and health education.

The process component is represented by missed nursing care, which serves as the independent variable of the study. Missed nursing care refers to necessary nursing care activities that are delayed, partially completed, or omitted due to work-related, organizational, logistical, or environmental constraints. In the context of this study, missed nursing care may include delays or omissions in basic nursing care, assessment and monitoring, medication and treatment-related care, patient or worker education, health promotion, documentation, communication, emergency preparedness, referral, and coordination of care. The framework assumes that structural conditions in the remote field setting may influence the ability of Filipino remote area nurses to complete required nursing care activities.

The outcome component is represented by job satisfaction, which serves as the dependent variable of the study. Job satisfaction refers to the degree to which Filipino remote area nurses are satisfied with their work, including the nature of work, workload and schedule, compensation and benefits, supervision and management support, professional autonomy, interpersonal relationships, professional growth, safety, working conditions, and overall work experience. The framework assumes that when nurses experience higher levels of missed nursing care, their job satisfaction may be affected because missed care may reduce

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their sense of professional accomplishment, create moral or emotional strain, and influence their perception of the work environment.

In this study, selected demographic and professional profile variables are also included because they may influence or explain differences in missed nursing care and job satisfaction. These variables include age, sex, civil status, highest educational attainment, years of nursing experience, years of experience in Saudi Arabia, years of experience as a remote area nurse, current work assignment, type of work setting, shift pattern, employment status, and average weekly working hours. These variables may serve as grouping variables in determining whether differences exist in the extent of missed nursing care and level of job satisfaction among respondents.

The conceptual framework therefore proposes that the remote onshore and offshore oil and gas field work environment provides the structural context in which Filipino remote area nurses deliver care. Within this context, structural factors such as staffing, workload, shift pattern, medical support, resources, communication, and logistics may contribute to the occurrence of missed nursing care. Missed nursing care, as the care process variable, is then examined in relation to job satisfaction, the workforce outcome variable. The study further considers whether selected demographic and professional characteristics are associated with differences in missed nursing care and job satisfaction.

Using this framework, the study seeks to determine the profile of Filipino remote area nurses, assess the extent of missed nursing care, determine the level of job satisfaction, examine significant differences according to selected profile variables, and test whether a significant relationship exists between missed nursing care and job satisfaction. The findings may serve as a basis for developing a workforce support plan aimed at reducing missed nursing care and enhancing job satisfaction among Filipino remote area nurses in onshore and offshore oil and gas field settings in the Kingdom of Saudi Arabia.

Statement of the Problem

This study aimed to determine the relationship between missed nursing care and job satisfaction among Filipino remote area nurses working in onshore and offshore oil and gas field settings in the Kingdom of Saudi Arabia. Specifically, this study sought to answer the following questions:

1. What is the demographic and professional profile of the respondents in terms of:

    1.1.Age

    1.2.Sex

    1.3.civil status

    1.4.highest educational attainment

    1.5.years of nursing experience

    1.6.years of experience in the Kingdom of Saudi Arabia

    1.7.years of experience as a remote area nurse

    1.8.current work assignment

    1.9.type of work setting

    1.10. shift pattern

    1.11. employment status

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1.12. average weekly working hours

2. What is the extent of missed nursing care among Filipino remote area nurses in terms of:

   2.1.basic nursing care

   2.2.assessment and monitoring

   2.3.medication and treatment-related care

   2.4.patient education and health promotion

   2.5.documentation and communication

   2.6.emergency preparedness and response

   2.7.referral and coordination of care

3. What are the perceived reasons for missed nursing care among Filipino remote area nurses in terms of:

   3.1.staffing adequacy

   3.2.workload and competing demands

   3.3.material and equipment resources

   3.4.communication and teamwork

   3.5.accessibility of medical support

   3.6.distance and logistical limitations

   3.7.work environment conditions

4. What is the level of job satisfaction among Filipino remote area nurses in terms of:

   4.1.nature of work

   4.2.workload and work schedule

   4.3.compensation and benefits

   4.4.supervision and management support

   4.5.professional autonomy

   4.6.interpersonal relationships

   4.7.professional growth and development

   4.8.safety and working conditions

   4.9.overall job satisfaction

5. Is there a significant difference in the extent of missed nursing care when respondents are grouped according to selected demographic and professional profile variables?

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6. Is there a significant difference in the level of job satisfaction when respondents are grouped according to selected demographic and professional profile variables?
7. Is there a significant relationship between missed nursing care and job satisfaction among Filipino remote area nurses in onshore and offshore oil and gas field settings in the Kingdom of Saudi Arabia?
8. Which selected variables significantly predict job satisfaction among Filipino remote area nurses in onshore and offshore oil and gas field settings?
9. Based on the findings of the study, what workforce support plan may be proposed to reduce missed nursing care and enhance job satisfaction among Filipino remote area nurses?

Hypothesis

The following null hypotheses were tested at the 0.05 level of significance:

H_{01}: There is no significant difference in the extent of missed nursing care among Filipino remote area nurses when grouped according to selected demographic and professional profile variables.

H_{02}: There is no significant difference in the level of job satisfaction among Filipino remote area nurses when grouped according to selected demographic and professional profile variables.

H_{03}: There is no significant relationship between missed nursing care and job satisfaction among Filipino remote area nurses in onshore and offshore oil and gas field settings in the Kingdom of Saudi Arabia.

H_{04}: Missed nursing care and selected demographic and professional variables do not significantly predict job

satisfaction among Filipino remote area nurses in onshore and offshore oil and gas field settings in the Kingdom of Saudi Arabia.

Significance of the Study

This study is significant because it provides context-specific evidence on missed nursing care and job satisfaction among Filipino remote area nurses working in onshore and offshore oil and gas field settings in the Kingdom of Saudi Arabia. By examining the extent and perceived reasons for missed nursing care, levels of job satisfaction, significant differences, relationships, and predictors, the findings may contribute to improving nursing practice, workforce management, and organizational support. The proposed Workforce Support Plan may provide practical recommendations for addressing challenges associated with geographically isolated and demanding work environments. Specifically, the study may benefit the following stakeholders.

Filipino Remote Area Nurses. The findings may help Filipino remote area nurses understand the factors contributing to missed nursing care and their relationship with job satisfaction. Identifying concerns involving staffing, workload, medical resources, communication, work schedules, and professional support may encourage greater awareness of workplace challenges. The findings may also promote professional reflection, effective care prioritization, improved communication, and participation in initiatives that strengthen nursing care delivery and professional well-being.

Nursing Professionals. The study may contribute to nursing practice by emphasizing that missed nursing care is influenced not only by individual performance but also by organizational and environmental conditions. The findings may reinforce the importance of clinical judgment, documentation, teamwork, emergency preparedness, referral coordination, and professional accountability in maintaining safe and effective nursing care, particularly in remote occupational health settings.

Nursing Administrators and Occupational Health Leaders. The findings may assist nursing administrators, supervisors, and occupational health leaders in identifying workforce concerns requiring

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organizational attention. Evidence regarding missed nursing care and job satisfaction may guide decisions involving staffing allocation, workload distribution, shift scheduling, resource availability, professional development, and employee support. These findings may also inform strategies that promote workforce stability, nurse retention, and quality improvement.

Oil and Gas Field Health Care Organizations. The study may provide information useful for strengthening health service delivery in remote industrial environments. Organizations may use the findings to review communication systems, emergency preparedness, access to medical consultation, logistical support, and workforce arrangements. The study does not intend to evaluate or compare individual organizations, and all identifying organizational information will remain confidential.

Nursing Educators. The findings may provide relevant information for integrating occupational health nursing, remote area practice, missed nursing care, and job satisfaction into nursing education. Educators may use the findings in classroom discussions, case analyses, and simulation activities emphasizing clinical prioritization, professional autonomy, resource management, emergency decision-making, and culturally responsive nursing practice.

Nursing Students. The study may broaden students' understanding of nursing responsibilities beyond conventional hospital environments. Exposure to the challenges of remote nursing may strengthen their appreciation of adaptability, ethical responsibility, teamwork, clinical judgment, and preparedness for specialized nursing roles.

Future Researchers. The findings may serve as baseline evidence for subsequent investigations involving Filipino expatriate nurses, occupational health nursing, and remote clinical practice. Future studies may examine additional variables, including burnout, moral distress, organizational support, resilience, turnover intention, and professional quality of life. Replication across other industrial and geographical settings may also strengthen understanding of workforce challenges and nursing care outcomes.

METHODOLOGY

Research Design

This study employed a quantitative descriptive-correlational, cross-sectional research design to examine missed nursing care and job satisfaction among Filipino remote area nurses in selected onshore and offshore oil and gas field settings in Saudi Arabia. The descriptive component assessed respondents' characteristics, missed nursing care, perceived reasons, and job satisfaction. Correlational and comparative analyses examined relationships and group differences, while multiple regression identified significant predictors of job satisfaction. Cross-sectional research collects data at a specific period without manipulating variables (Setia, 2016). Although the design identifies statistical associations and predictors, it cannot establish causal relationships (Wang & Cheng, 2020).

Research Locale

This study was conducted among Filipino registered nurses assigned to selected remote onshore and offshore oil and gas field health care settings in the Kingdom of Saudi Arabia. These settings included occupational health clinics, industrial health units, emergency response facilities, and offshore medical units supporting oil and gas operations. Onshore settings referred to land-based facilities, while offshore settings involved sea-based operational facilities. The locale was considered appropriate because remote area nurses perform diverse responsibilities, including patient assessment, medication administration, emergency response, health education, documentation, and referral coordination. Geographic isolation, limited medical resources, staffing constraints, rotational schedules, and logistical challenges may influence nursing care delivery and job satisfaction. To protect respondent anonymity and organizational confidentiality, the names of companies, contractors, clinics, offshore platforms, and exact field locations were withheld. The study focused on examining missed nursing care and job satisfaction within remote industrial nursing environments rather than comparing specific organizations or facilities.

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Population and Sampling Procedure

The study involved 120 Filipino registered nurses assigned to remote onshore and offshore oil and gas field health care settings in the Kingdom of Saudi Arabia. Eligible respondents were licensed Filipino nurses performing direct nursing responsibilities, with at least six months of remote area nursing experience, who voluntarily provided informed consent. Non-Filipino nurses, non-nursing personnel, hospital-based nurses, and those with insufficient remote experience were excluded. Nonprobability purposive sampling was employed to identify qualified respondents, supplemented by snowball sampling through professional networks, referrals, and online communication platforms. This approach was appropriate because respondents were geographically dispersed across specialized industrial settings. An a priori power analysis using G*Power, with a medium effect size ($f^2 = 0.15$), $\alpha = .05$, 80% statistical power, and 10 predictor parameters, indicated approximately 118 respondents. The final sample of 120 nurses met this estimated requirement for multiple regression analysis.

Research Instrument

The study utilized a structured survey questionnaire to assess missed nursing care and job satisfaction among Filipino remote area nurses working in selected onshore and offshore oil and gas field settings in the Kingdom of Saudi Arabia. The instrument comprised four parts aligned with the research objectives and was adapted from established questionnaires to reflect the responsibilities and working conditions of remote industrial nursing. Instrument adaptation requires consideration of item relevance, comprehensiveness, and comprehensibility within the target population (Mokkink et al., 2024).

Part I gathered demographic and professional characteristics, including age, sex, civil status, educational attainment, nursing experience, years of employment in Saudi Arabia, remote nursing experience, work assignment, work setting, shift pattern, employment status, and weekly working hours. These characteristics served as descriptive, comparative, and potential predictive variables.

Part II measured missed nursing care using items adapted from the MISSCARE Survey developed by Kalisch and Williams (2009). The instrument assessed basic nursing care, patient assessment and monitoring, medication and treatment, health education, documentation, emergency preparedness, and referral coordination. Responses followed a five-point Likert scale ranging from 1 (Never Missed) to 5 (Always Missed), with higher scores indicating greater missed nursing care.

Part III assessed perceived reasons for missed nursing care, drawing from the MISSCARE Survey's labor resources, material resources, and communication categories (Kalisch & Williams, 2009). Contextualized items examined staffing, workload, equipment availability, teamwork, medical support accessibility, geographical isolation, logistical limitations, and working conditions. Responses ranged from 1 (Not a Reason) to 5 (Major Reason).

Part IV assessed job satisfaction using items informed by the Job Satisfaction Questionnaire for Health Workforce developed by Ahmad et al. (2020). The adapted items covered workload, scheduling, compensation, supervision, professional autonomy, interpersonal relationships, professional development, and working conditions. Responses ranged from 1 (Very Dissatisfied) to 5 (Very Satisfied), with higher scores indicating greater satisfaction.

The instrument underwent content validation by five experts specializing in nursing research, occupational health, remote nursing, nursing education, and instrument development. The reported item-level Content Validity Index ranged from .80 to 1.00, while the Scale-Level Content Validity Index was .94, indicating strong expert agreement regarding item relevance. The questionnaire was subsequently pilot-tested among 30 qualified nurses excluded from the final sample. Cronbach's alpha coefficients were .92 for missed nursing care, .90 for perceived reasons, and .94 for job satisfaction, with an overall coefficient of .95. These results indicated high internal consistency, although reliability should also be interpreted according to scale dimensionality (Stefana et al., 2025). The finalized instrument was administered in English, with identifying information excluded to protect confidentiality.

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Cultural and linguistic adaptation focused on contextual relevance rather than translation into another language. The instrument remained in English, the language of administration specified in the protocol and familiar from Filipino nursing education and clinical communication. Items originally framed for hospital-based practice were contextualized to remote occupational and industrial health work: assessment and monitoring, medication and treatment, worker education and health promotion, electronic or paper documentation, referral follow-up, emergency readiness, teleconsultation access, geographical isolation, rotational shifts, and field logistics. The missed-care and reason domains were informed by the original MISSCARE Survey, and job-satisfaction items were informed by the health-workforce questionnaire; the revised domains and five-point response categories constituted study-specific adaptations rather than exact reproductions of the original subscales. Expert content review by five validators and pilot testing with 30 comparable nurses, as reported above, supported preliminary content relevance and internal consistency. Nevertheless, the manuscript does not report formal forward–back translation, cognitive interviews, measurement invariance testing, or factor-analytic confirmation of the adapted domain structure. These unperformed or undocumented procedures must not be assumed; future studies should examine comprehension and cultural equivalence directly, including whether wording is interpreted consistently by nurses with different expatriate and field-based experiences (Kalisch & Williams, 2009; Ahmad et al., 2020; Mokkink et al., 2024).

Data Collection Procedure

Data collection was conducted among Filipino registered nurses assigned to remote onshore and offshore oil and gas field health care settings in Saudi Arabia. Before recruitment, the researcher obtained approval from the research adviser, research committee, and appropriate ethics review body. Eligible participants were identified through nursing networks and online platforms using purposive sampling supplemented by snowball referrals. Prospective respondents were screened against inclusion criteria and informed of the study's purpose, procedures, confidentiality safeguards, voluntary participation, and right to withdraw without penalty. Informed consent was obtained before questionnaire administration.

The structured questionnaire was distributed electronically or in print and required approximately 15–20 minutes to complete. It covered demographic and professional characteristics, missed nursing care, perceived reasons for missed care, and job satisfaction. Participants completed the questionnaire independently, without supervisory or employer influence. Responses were reviewed for eligibility and completeness until 120 valid questionnaires were obtained. Personal and organizational identifiers were excluded to protect confidentiality. Finally, responses were coded, stored in password-protected files, and prepared for statistical analysis. The collected data were used solely for academic research purposes.

Ethical Consideration

The study adhered to established ethical principles governing research involving human participants, emphasizing respect for persons, beneficence, non-maleficence, voluntary participation, informed consent, privacy, and confidentiality. Before data collection, approval was secured from the appropriate academic and ethics review authorities to ensure compliance with institutional research requirements.

Participants were informed about the study's purpose, procedures, potential risks and benefits, and their right to decline or withdraw without penalty. Informed consent was obtained before questionnaire administration. Participation was voluntary, and recruitment procedures avoided coercion or undue influence from employers, supervisors, or colleagues.

To safeguard confidentiality, the questionnaire excluded names, employee numbers, company identities, and exact worksite locations. Responses were coded and reported in aggregate form to minimize direct and indirect identification. Electronic records were stored in password-protected files, while printed documents were secured and accessible only to authorized research personnel.

The study involved minimal risk, although questions concerning workplace experiences could cause discomfort. Participants could skip questions or discontinue participation without consequences.

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Organizational confidentiality and sensitivity to Saudi cultural and legal requirements were maintained. Research data were retained and disposed of according to institutional policies. These safeguards protected respondents' rights, professional standing, and welfare throughout the research process.

RESULTS, ANALYSIS, AND DISCUSSION

Profile of the Respondents

The first research question sought to determine the demographic and professional profile of the Filipino remote area nurses in terms of age, sex, civil status, highest educational attainment, years of nursing experience, years of experience in the Kingdom of Saudi Arabia, years of experience as a remote area nurse, current work assignment, type of work setting, shift pattern, employment status, and average weekly working hours. Describing these characteristics provides an overview of the respondents included in the study and establishes the demographic and professional context within which their experiences of missed nursing care and job satisfaction were examined. Frequency and percentage were used to summarize the respondents' characteristics. Table 1 presents the demographic and professional profile of the 120 respondents.

Table 1: Demographic and Professional Profile of the Respondents (n = 120)

Profile Variable	Category	Frequency	Percentage
Age	20–29 years	18	15
	30–39 years	58	48.3
	40–49 years	34	28.3
	50 years and above	10	8.3
Sex	Male	92	76.7
	Female	27	22.5
	Prefer not to say	1	0.8
Civil Status	Single	35	29.2
	Married	78	65
	Separated	4	3.3
	Widowed	1	0.8
	Others	2	1.7
Highest Educational Attainment	BSN	88	73.3
	MAN/MSN units	20	16.7
	MAN/MSN graduate	9	7.5
	Doctoral units	2	1.7
	Doctoral graduate	0	0
	Others	1	0.8
Total Years of Nursing Experience	6 months–2 years	7	5.8
	3–5 years	18	15
	6–10 years	38	31.7
	11–15 years	31	25.8
	More than 15 years	26	21.7
Years of Experience in Saudi Arabia	6 months–2 years	18	15
	3–5 years	32	26.7
	6–10 years	37	30.8
	11–15 years	21	17.5

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	More than 15 years	12	10
Years as a Remote Area Nurse	6 months–2 years	24	20
	3–5 years	38	31.7
	6–10 years	35	29.2
	More than 10 years	23	19.2
Current Work Assignment	Field clinic	44	36.7
	Occupational health unit	29	24.2
	Emergency response clinic	20	16.7
	Offshore medical unit	19	15.8
	Others	8	6.7
Type of Work Setting	Onshore	69	57.5
	Offshore	39	32.5
	Both onshore and offshore	12	10
Shift Pattern	8-hour shift	11	9.2
	12-hour shift	52	43.3
	Extended/rotational shift	45	37.5
	On-call duty	7	5.8
	Others	5	4.2
Employment Status	Direct hire	36	30
	Contractual	28	23.3
	Agency/contractor-based	52	43.3
	Others	4	3.3
Average Weekly Working Hours	Less than 40 hours	4	3.3
	40–48 hours	31	25.8
	49–60 hours	52	43.3
	More than 60 hours	33	27.5

Table 1 presents the demographic and professional characteristics of the 120 Filipino remote area nurses working in selected onshore and offshore oil and gas field settings in the Kingdom of Saudi Arabia. The findings describe respondents' age, sex, civil status, educational attainment, nursing experience, work assignment, employment status, shift pattern, and weekly working hours. These characteristics provide a foundation for understanding the professional circumstances associated with missed nursing care and job satisfaction.

Regarding age, the largest proportion of respondents belonged to the 30–39-year-old age group (48.3%), followed by those aged 40–49 years (28.3%). This indicates that most participants were in established stages of their nursing careers. Furthermore, 76.7% were male, while 22.5% were female. The predominance of male respondents may reflect the characteristics of the selected industrial nursing sample rather than the general nursing workforce. In terms of civil status, 65.0% were married, suggesting that family responsibilities may be relevant when examining satisfaction with remote and rotational assignments.

Regarding educational attainment, 73.3% held a Bachelor of Science in Nursing degree, while 25.9% had pursued or completed graduate-level education. Concerning professional experience, 31.7% had practiced nursing for 6–10 years, followed by 25.8% with 11–15 years and 21.7% with more than 15 years. Similarly, 30.8% had worked in Saudi Arabia for 6–10 years. These findings indicate that the sample consisted predominantly of professionally experienced nurses with considerable exposure to the Saudi health care environment.

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The distribution of respondents according to remote area nursing experience revealed that 31.7% had practiced for 3–5 years, while 29.2% had 6–10 years of experience. This suggests that most respondents were familiar with the clinical and operational demands of remote nursing. Fox et al. (2023) highlighted that health care delivery in oil and gas operations involves distinctive occupational health needs, geographical challenges, and service-delivery arrangements. Their review supports the importance of considering remote practice experience when examining nursing responsibilities and workplace conditions.

Regarding current assignments, 36.7% worked in field clinics, 24.2% in occupational health units, 16.7% in emergency response clinics, and 15.8% in offshore medical units. Furthermore, 57.5% were assigned to onshore settings, 32.5% to offshore settings, and 10.0% to both. These findings demonstrate the diversity of remote nursing assignments. The different clinical responsibilities, resource requirements, and logistical conditions across these settings may influence opportunities to complete nursing activities and maintain job satisfaction.

Kattan and Al-Hanawi (2025) reported persistent inequalities in nursing workforce distribution across Saudi Arabia despite national workforce growth. Although their study examined regional workforce distribution rather than remote industrial nursing, its findings emphasize the importance of workforce allocation and accessibility. These considerations are relevant to remote health care settings, where geographical isolation and differences in staffing arrangements may create additional challenges.

Concerning work schedules, 43.3% of respondents worked 12-hour shifts, while 37.5% followed extended or rotational schedules. Additionally, 43.3% reported working 49–60 hours weekly, and 27.5% worked more than 60 hours. These findings demonstrate that prolonged working hours and nontraditional schedules characterized the employment conditions of many respondents. Such arrangements may have implications for fatigue, workload management, nursing care completion, and professional satisfaction. This interpretation is supported by Algin et al. (2024), whose systematic review and meta-analysis involving 10,418 nurses identified a significant negative relationship between missed nursing care and job satisfaction. Although their findings were not specific to remote industrial nursing, they provide relevant evidence concerning the relationship between care omissions and nurses' work experiences. The present demographic findings do not establish that extended schedules cause missed nursing care, but they identify working conditions that warrant examination in subsequent analyses.

Regarding employment status, agency- or contractor-based nurses represented the largest group (43.3%), followed by direct-hire employees (30.0%) and contractual workers (23.3%). These differences may be relevant when examining job satisfaction because employment arrangements can involve variations in organizational support, benefits, schedules, and professional development opportunities.

Overall, the respondents were predominantly male, married, professionally experienced, and assigned to field-based nursing roles involving extended or rotational working schedules. The findings suggest that professional experience, workplace assignment, employment arrangements, and weekly working hours are important contextual characteristics for understanding missed nursing care and job satisfaction. Consistent with recent literature, the results support examining how organizational and operational conditions relate to nursing care delivery and workforce well-being. However, because purposive and referral-based sampling were employed, the findings describe the participating nurses and should not be generalized to all Filipino remote area nurses in Saudi Arabia without further evidence.

Extent of Missed Nursing Care

The second research question examined the extent of missed nursing care among Filipino remote area nurses across seven domains: basic nursing care, assessment and monitoring, medication and treatment, patient education and health promotion, documentation and communication, emergency preparedness and response, and referral coordination. Mean and standard deviation were used to determine the frequency of delayed, incomplete, or omitted nursing activities. Table 2 presents the findings.

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Table 2: Extent of Missed Nursing Care among Filipino Remote Area Nurses (n = 120)

Domain	Mean	SD	Verbal Interpretation	Rank
Documentation and Communication	3.12	0.76	Moderate Extent	1
Patient Education and Health Promotion	2.96	0.81	Moderate Extent	2
Referral and Coordination of Care	2.84	0.79	Moderate Extent	3
Assessment and Monitoring	2.61	0.72	Moderate Extent	4
Basic Nursing Care	2.45	0.74	Low Extent	5
Medication and Treatment-Related Care	2.27	0.68	Low Extent	6
Emergency Preparedness and Response	2.21	0.66	Low Extent	7
Overall	**2.64**	**0.59**	**Moderate Extent**	

Note. Mean scores were interpreted as follows: 4.21–5.00 = Very High Extent; 3.41–4.20 = High Extent; 2.61–3.40 = Moderate Extent; 1.81–2.60 = Low Extent; and 1.00–1.80 = Very Low Extent. Higher scores indicate a greater extent of missed nursing care. The scoring direction is consistent with Part II of the appended instrument, in which higher ratings represent more frequently missed care.

The second research question examined the extent of missed nursing care among Filipino remote area nurses working in selected onshore and offshore oil and gas field settings in the Kingdom of Saudi Arabia. As presented in Table 2, the respondents reported an overall mean of 2.64 (SD = 0.59), indicating a moderate extent of missed nursing care. This suggests that certain nursing responsibilities were occasionally delayed, partially completed, or omitted. The findings demonstrate variations across the seven domains, reflecting differences in the frequency with which nursing activities were missed.

The overall findings are consistent with the growing evidence that missed nursing care remains a concern across health care environments. Gong et al. (2025), in a systematic review and meta-analysis involving 28 studies and 20,768 nurses from 14 countries, identified staffing shortages, unexpected increases in patient volume or acuity, and urgent patient situations as frequently reported reasons for missed care. Similarly, Breno et al. (2025) emphasized that missed nursing care is associated with organizational conditions and potentially adverse patient outcomes. These studies support interpreting the present findings within the broader context of nursing workload, staffing, and care-delivery systems rather than attributing omissions exclusively to individual performance.

Documentation and communication obtained the highest mean of 3.12 (SD = 0.76), indicating a moderate extent of missed nursing care. This suggests that recording patient assessments, documenting interventions, communicating health information, and completing endorsements were the most frequently affected responsibilities. In remote nursing environments, documentation and communication may compete with immediate clinical activities, occupational health responsibilities, and emergency-related demands. However, this pattern differs from Alshammari et al. (2025), who found that documentation was among the less frequently missed activities among 366 nurses in Saudi government hospitals. This difference may reflect variations in work settings, staffing arrangements, clinical priorities, and documentation systems. The comparison suggests that documentation challenges may be particularly relevant to the workflow of the remote area nurses represented in the present study.

Patient education and health promotion ranked second, with a mean of 2.96 (SD = 0.81), indicating a moderate extent of missed care. This finding suggests that health teaching, medication instructions, occupational health education, and follow-up guidance were occasionally postponed or incompletely provided. Breno et al. (2025), in their systematic review, identified patient education and discharge planning among commonly omitted nursing interventions in hospital settings. The similarity suggests that educational activities may be vulnerable when nurses encounter competing responsibilities. In remote industrial settings, incomplete health education may be particularly important because workers often rely on preventive guidance and self-management advice when immediate access to higher-level health facilities is limited.

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Referral and coordination of care ranked third, with a mean of 2.84 (SD = 0.79), indicating a moderate extent of missed nursing care. This suggests that referrals to physicians or higher-level medical facilities, follow-up coordination, and communication with relevant support personnel were occasionally delayed or incomplete. Hellfritz et al. (2023), in a qualitative study involving 22 offshore paramedics, identified communication practices, consultation complexity, and appropriate use of telemedicine as important considerations in offshore health care. Although their study involved offshore paramedics rather than Filipino nurses, its findings provide relevant contextual evidence regarding challenges associated with remote consultation. The present results therefore highlight the importance of timely referral, clear communication, and coordinated access to medical support in geographically isolated settings.

Assessment and monitoring obtained a mean of 2.61 (SD = 0.72), ranking fourth and indicating a moderate extent of missed care. This suggests that patient assessment, vital-sign monitoring, and reassessment following treatment were occasionally delayed or incomplete. However, the domain's mean was lower than those for documentation, patient education, and referral coordination. Alshammari et al. (2025) similarly reported that vital-sign assessment and glucose monitoring were among the less frequently missed nursing activities in Saudi hospitals. This relative similarity may indicate that nurses give substantial attention to clinical assessment and monitoring because these activities are directly associated with identifying patient deterioration and determining appropriate interventions.

Basic nursing care obtained a mean of 2.45 (SD = 0.74), indicating a low extent of missed care. This suggests that essential supportive nursing activities were generally completed more consistently than documentation, health education, and referral coordination. Interestingly, Alshammari et al. (2025) reported a contrasting pattern in Saudi government hospitals, where mouth care, bathing, and assistance with meals were among the most frequently missed nursing activities. This difference may be explained by the distinct characteristics of the populations and settings. Conventional inpatient nursing frequently involves assistance with daily living activities, whereas remote occupational health nursing places greater emphasis on assessment, treatment, emergency response, and worker health services. Consequently, differences in clinical responsibilities may influence which nursing activities are most susceptible to omission.

Medication and treatment-related care ranked sixth, with a mean of 2.27 (SD = 0.68), indicating a low extent of missed care. This suggests that medication administration and treatment-related responsibilities were relatively less frequently delayed or omitted. The finding may reflect the priority assigned to interventions requiring timely clinical action. Nevertheless, the low mean should not be interpreted as evidence that medication-related omissions are clinically insignificant. Breno et al. (2025) identified medication errors among adverse outcomes associated with missed nursing care in hospital-based research. Thus, maintaining medication safety and treatment continuity remains important even when the reported extent of missed care is relatively low.

Emergency preparedness and response obtained the lowest mean of 2.21 (SD = 0.66), indicating a low extent of missed nursing care. This suggests that emergency equipment checks, readiness activities, and related responsibilities were among the least frequently missed domains. The finding is relevant because emergency preparedness is an essential component of health care delivery in industrial environments where injuries, acute illnesses, and delays in medical evacuation may require immediate stabilization and coordinated action. However, the result reflects the respondents' self-reported experiences rather than an independent assessment of actual emergency response performance. Therefore, it should not be interpreted as evidence that all emergency preparedness requirements were consistently fulfilled.

Perceived Reasons for Missed Nursing Care

The third research question examined the perceived reasons for missed nursing care among Filipino remote area nurses in terms of staffing adequacy, workload and competing demands, material and equipment resources, communication and teamwork, accessibility of medical support, distance and logistical limitations, and work environment conditions. Identifying these factors helped determine the circumstances contributing to delayed, incomplete, or omitted nursing activities in remote onshore and offshore oil and gas

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field settings. Mean and standard deviation were used to assess the respondents' perceptions across the seven domains. Table 3 presents the findings.

Table 3: Perceived Reasons for Missed Nursing Care among Filipino Remote Area Nurses (n = 120)

Domain	**Mean**	**SD**	**Verbal Interpretation**	**Rank**
Workload and Competing Demands	4.08	0.68	Moderate Reason	1
Staffing Adequacy	3.92	0.74	Moderate Reason	2
Distance and Logistical Limitations	3.78	0.77	Moderate Reason	3
Accessibility of Medical Support	3.61	0.79	Moderate Reason	4
Work Environment Conditions	3.49	0.73	Moderate Reason	5
Material and Equipment Resources	3.36	0.75	Minor Reason	6
Communication and Teamwork	3.21	0.71	Minor Reason	7
Overall	**3.64**	**0.58**	**Moderate Reason**	

Note. Mean scores were interpreted as follows: 4.21–5.00 = Major Reason; 3.41–4.20 = Moderate Reason; 2.61–3.40 = Minor Reason; 1.81–2.60 = Very Minor Reason; and 1.00–1.80 = Not a Reason. Higher scores indicate that a factor was perceived as a stronger contributor to missed nursing care. These interpretations correspond to the response scale used in Part III of the appended questionnaire.

The third research question examined the perceived reasons for missed nursing care among Filipino remote area nurses in selected onshore and offshore oil and gas field settings in the Kingdom of Saudi Arabia. As presented in Table 3, the respondents reported an overall mean of 3.64 (SD = 0.58), indicating that the identified factors were generally perceived as moderate reasons for missed nursing care. The findings suggest that organizational, operational, logistical, and environmental conditions contributed to situations in which required nursing activities were delayed, partially completed, or omitted.

Workload and competing demands obtained the highest mean of 4.08 (SD = 0.68), indicating that excessive responsibilities and simultaneous clinical demands were the leading perceived reasons for missed nursing care. This finding agrees with Gong et al. (2025), whose systematic review and meta-analysis of 28 studies involving 20,768 nurses identified unexpected increases in patient volume or acuity (78.1%) and urgent patient situations (73.5%) among the most frequently reported reasons for missed care. Similarly, Breno et al. (2025) identified high workloads as an important organizational factor associated with missed nursing care. These findings suggest that competing responsibilities may limit nurses' ability to complete all necessary interventions, particularly in remote settings where occupational health services, emergency response, documentation, and routine clinical responsibilities may overlap.

Staffing adequacy ranked second, with a mean of 3.92 (SD = 0.74), indicating a moderate reason for missed nursing care. This suggests that insufficient nursing or health personnel may contribute to delayed or incomplete care. Gong et al. (2025) reported that inadequate staffing was cited by 76.5% of nurses across the studies included in their meta-analysis. Likewise, Alshammari et al. (2025), in a cross-sectional study involving 366 nurses in Saudi government hospitals, identified staffing shortages and high patient loads as major contributors to missed nursing care. These findings support the importance of adequate staffing in maintaining care continuity, although the staffing requirements of remote industrial clinics may differ from those of conventional hospitals.

Distance and logistical limitations ranked third, with a mean of 3.78 (SD = 0.77), indicating a moderate

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reason. This finding highlights the potential influence of geographical isolation, transportation constraints, and distance from referral facilities on nursing care delivery. Hellfritz et al. (2023), in a qualitative study of telemedical care in offshore settings, emphasized the importance of communication and remote consultation in maintaining health service quality. Although their investigation involved offshore paramedics rather than nurses working in Saudi oil and gas operations, it provides relevant evidence concerning the challenges of delivering health care in geographically isolated environments. The present findings suggest that logistical limitations may affect timely referrals, medical consultations, and continuity of care.

Accessibility of medical support obtained a mean of 3.61 (SD = 0.79), ranking fourth. This indicates that limited access to physicians, specialists, and higher-level medical assistance was perceived as another moderate reason for missed nursing care. Hellfritz et al. (2023) emphasized that telemedical consultation plays an important role in supporting health professionals practicing offshore. Their findings highlight the importance of reliable consultation systems and effective communication between remote health personnel and supporting physicians. Similarly, the present results suggest that strengthening access to medical support may help address delays in clinical decision-making and referral coordination.

Work environment conditions ranked fifth, with a mean of 3.49 (SD = 0.73), indicating a moderate reason for missed nursing care. Extended working hours, fatigue, administrative responsibilities, and demanding working conditions may interfere with nurses' ability to complete required interventions. Breno et al. (2025) emphasized the influence of organizational conditions, including workload and staffing, on missed nursing care. These findings support the need to consider work schedules, fatigue prevention, and organizational support when examining nursing care omissions. However, the present descriptive results do not establish that these conditions directly caused missed nursing care.

Material and equipment resources obtained a mean of 3.36 (SD = 0.75), indicating a minor reason. This suggests that shortages of supplies, medicines, equipment, or other essential resources were perceived as less influential than workload, staffing, and logistical limitations. Nevertheless, Breno et al. (2025) identified limited resources among the organizational factors associated with missed nursing care. The lower ranking in the present study may indicate differences in resource availability or operational arrangements across the respondents' practice settings. However, actual resource adequacy cannot be established solely from their perceptions.

Communication and teamwork obtained the lowest mean of 3.21 (SD = 0.71), indicating a minor reason for missed nursing care. This suggests that communication difficulties, incomplete endorsements, unclear responsibilities, and teamwork concerns were perceived as less prominent contributors compared with other factors. Nevertheless, Hellfritz et al. (2023) highlighted the importance of communication in remote medical consultation, while Gong et al. (2025) identified multiple organizational and interpersonal reasons for missed care across health systems. Thus, communication remains an important consideration even when respondents rate it as a comparatively less influential factor.

Overall, the findings indicate that workload and competing demands, staffing adequacy, and distance and logistical limitations were the most prominent perceived reasons for missed nursing care among Filipino remote area nurses. These results are generally consistent with recent studies emphasizing the influence of organizational and staffing conditions on nursing care omissions. However, the relatively high ranking of geographical and logistical limitations highlights the distinctive challenges associated with remote onshore and offshore nursing practice.

The findings suggest that the proposed Workforce Support Plan should prioritize workload management, staffing adequacy, fatigue prevention, logistical coordination, and accessibility of medical consultation. Although material resources and communication were ranked lower, these areas should remain part of continuous quality-improvement efforts. Because the study relied on self-reported perceptions and nonprobability sampling, the findings should be interpreted as perceived contributing factors rather than confirmed causal determinants of missed nursing care.

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Level of Job Satisfaction

The fourth research question sought to determine the level of job satisfaction among Filipino remote area nurses in terms of nature of work, workload and work schedule, compensation and benefits, supervision and management support, professional autonomy, interpersonal relationships, professional growth and development, safety and working conditions, and overall job satisfaction. Examining these dimensions provides a broader understanding of how respondents perceived different aspects of their employment and professional experience within remote onshore and offshore oil and gas field settings. Mean and standard deviation were used to summarize the respondents' level of satisfaction across the identified dimensions. These dimensions were consistent with those specified in the Statement of the Problem. Table 4 presents the level of job satisfaction among the respondents.

Table 4: Level of Job Satisfaction among Filipino Remote Area Nurses (n = 120)

Dimension	**Mean**	**SD**	**Verbal Interpretation**	**Rank**
Nature of Work	3.75	0.67	High Satisfaction	1
Professional Autonomy	3.62	0.71	High Satisfaction	2
Interpersonal Relationships	3.54	0.73	High Satisfaction	3
Supervision and Management Support	3.41	0.78	High Satisfaction	4
Safety and Working Conditions	3.35	0.76	Moderate Satisfaction	5
Professional Growth and Development	3.29	0.8	Moderate Satisfaction	6
Compensation and Benefits	3.12	0.84	Moderate Satisfaction	7
Workload and Work Schedule	3.08	0.82	Moderate Satisfaction	8
Overall Job Satisfaction	**3.39**	**0.61**	**Moderate Satisfaction**	

Note. Mean scores were interpreted as follows: 4.21–5.00 = Very High Satisfaction; 3.41–4.20 = High Satisfaction; 2.61–3.40 = Moderate Satisfaction; 1.81–2.60 = Low Satisfaction; and 1.00–1.80 = Very Low Satisfaction. Higher scores indicate higher job satisfaction. This scoring direction is consistent with Part IV of the appended instrument.

The fourth research question determined the level of job satisfaction among 120 Filipino remote area nurses working in selected onshore and offshore oil and gas field settings in the Kingdom of Saudi Arabia. As presented in Table 4, the respondents reported an overall mean of 3.39 (SD = 0.61), indicating moderate job satisfaction. This suggests that nurses generally maintained favorable perceptions of certain professional responsibilities while expressing comparatively lower satisfaction with employment conditions and organizational arrangements. This finding is consistent with Saleh et al. (2026), who examined 494 Saudi and non-Saudi critical care and emergency nurses and found that 57.9% reported moderate job satisfaction. Their study also identified associations between job satisfaction, workplace characteristics, psychological well-being, and turnover intention. Although the study involved hospital-based nurses, its findings provide relevant evidence that professional satisfaction is influenced by multiple occupational and organizational factors.

Nature of work obtained the highest mean of 3.75 (SD = 0.67), indicating high satisfaction. This suggests that respondents generally valued their professional responsibilities and found fulfillment in providing remote nursing services. Professional autonomy ranked second (M = 3.62, SD = 0.71), also indicating high satisfaction. These findings may reflect the independent clinical responsibilities and decision-making opportunities associated with remote nursing practice. Lucas et al. (2025) demonstrated that favorable nursing practice environments are associated with improved job satisfaction, supporting the importance of professional roles and supportive conditions in shaping nurses' work experiences.

Interpersonal relationships ranked third (M = 3.54, SD = 0.73), indicating high satisfaction. This suggests

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that respondents generally valued their relationships with colleagues and other health care personnel. Supervision and management support followed (M = 3.41, SD = 0.78), also indicating high satisfaction. Abou Hashish and Alnajjar (2025), in their investigation of expatriate nurses in Saudi Arabia, emphasized the importance of organizational and professional support in understanding migration experiences and retention challenges. Their findings provide contextual support for the importance of workplace relationships and management practices among expatriate nurses.

Safety and working conditions obtained a mean of 3.35 (SD = 0.76), indicating moderate satisfaction. This suggests that although respondents generally accepted their work environments, certain occupational conditions may require improvement. Saleh et al. (2026) reported significant associations between job satisfaction and physical and psychological well-being among Saudi and non-Saudi nurses. Their findings highlight the importance of considering workplace safety, occupational health, and employee well-being when evaluating professional satisfaction.

Professional growth and development ranked sixth (M = 3.29, SD = 0.80), indicating moderate satisfaction. This suggests that continuing education, professional advancement, and skill-development opportunities may not have fully met respondents' expectations. Almutairi et al. (2026) found that perceived skill development and institutional support were associated with resilience, which was positively correlated with job satisfaction among nurses in Saudi Arabia. This supports the importance of accessible continuing professional development and organizational support for nurses working in geographically isolated settings.

Compensation and benefits obtained a mean of 3.12 (SD = 0.84), indicating moderate satisfaction. This finding suggests that financial rewards and employment benefits were among the less positively evaluated aspects of respondents' work experiences. Saleh et al. (2026) identified higher salary as a significant factor as-

sociated with greater job satisfaction among Saudi and non-Saudi nurses. Although compensation arrangements differ across employment settings, their findings support considering remuneration and employment benefits when developing workforce-support strategies.

Workload and work schedule received the lowest mean of 3.08 (SD = 0.82), indicating moderate satisfaction. This finding is particularly relevant because many respondents reported extended or rotational shifts and working hours exceeding 48 hours weekly. Lucas et al. (2025) identified relationships among the nursing practice environment, burnout, job satisfaction, and intention to leave, emphasizing the importance of supportive working conditions. Similarly, Saleh et al. (2026) found that lower perceived job distress was associated with higher job satisfaction. These studies support the relevance of workload management and occupational well-being, although the present descriptive findings cannot establish that extended work schedules directly caused lower satisfaction.

Overall, the findings revealed a distinction between intrinsic professional satisfaction and employment-related satisfaction. Nature of work, autonomy, interpersonal relationships, and supervisory support received high ratings, whereas workload, compensation, professional development, and working conditions received moderate ratings. Recent studies similarly emphasize the importance of supportive practice environments, professional development, employment conditions, and psychological well-being in shaping nursing job satisfaction (Abou Hashish & Alnajjar, 2025; Lucas et al., 2025; Almutairi et al., 2026; Saleh et al., 2026). The findings suggest that the proposed Workforce Support Plan should prioritize workload and scheduling improvements, equitable compensation, professional development, occupational safety, and sustained organizational support. However, the results represent self-reported experiences among participating nurses and should not be generalized to all remote industrial nursing settings in Saudi Arabia.

Differences in the Extent of Missed Nursing Care According to Selected Demographic and Professional Profile Variables

The fifth research question sought to determine whether there was a significant difference in the extent of missed nursing care when the respondents were grouped according to selected demographic and professional

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profile variables. Specifically, comparisons were made according to age, total years of nursing experience, years of experience in the Kingdom of Saudi Arabia, years of experience as a remote area nurse, current work assignment, type of work setting, shift pattern, employment status, and average weekly working hours. These variables were examined to determine whether particular demographic or work-related characteristics were associated with differences in the respondents' reported extent of missed nursing care. The corresponding null hypothesis stated that there was no significant difference in missed nursing care when respondents were grouped according to selected demographic and professional characteristics.

One-way analysis of variance was used to compare the overall missed nursing care scores across the selected profile groups. Statistical significance was evaluated at the .05 level. When a significant overall difference was identified, post hoc comparisons were used to determine which specific groups accounted for the difference. Table 5 presents the differences in the extent of missed nursing care according to selected demographic and professional profile variables.

Table 5: Differences in the Extent of Missed Nursing Care According to Selected Demographic and Professional Profile Variables (n = 120)

Profile Variable	F-value	p-value	Interpretation	Decision on H_0
Age	1.84	0.144	Not Significant	Fail to Reject
Total Years of Nursing Experience	2.11	0.084	Not Significant	Fail to Reject
Years of Experience in Saudi Arabia	1.46	0.219	Not Significant	Fail to Reject
Years as a Remote Area Nurse	3.06	0.031	Significant	Reject
Current Work Assignment	2.56	0.042	Significant	Reject
Type of Work Setting	4.87	0.009	Significant	Reject
Shift Pattern	5.72	< .001	Significant	Reject
Employment Status	1.98	0.121	Not Significant	Fail to Reject
Average Weekly Working Hours	6.31	< .001	Significant	Reject

Note. A result was considered statistically significant at $p \leq .05$.

As presented in Table 5, statistically significant differences in missed nursing care were identified according to remote area nursing experience, current work assignment, type of work setting, shift pattern, and average weekly working hours. Conversely, age, total nursing experience, years of employment in Saudi Arabia, and employment status showed no significant differences. These findings suggest that missed nursing care varied more noticeably across remote-practice and work-related characteristics than across general demographic characteristics.

Age did not significantly differentiate missed nursing care ($F = 1.84$, $p = .144$). Similarly, total nursing experience ($F = 2.11$, $p = .084$) and years of employment in Saudi Arabia ($F = 1.46$, $p = .219$) were not significant. These findings suggest that chronological age and general professional experience alone were insufficient to distinguish the reported extent of missed nursing care. Al-Sawad et al. (2026), in a study involving 181 nurses in a Saudi academic medical center, emphasized staffing adequacy, labor resources, and communication as important factors associated with missed nursing care. Their findings support the relevance of organizational conditions beyond individual professional characteristics.

In contrast, years of experience as a remote area nurse demonstrated a significant difference ($F = 3.06$, $p = .031$). Nurses with six months to two years of remote experience reported the highest missed nursing care mean ($M = 2.82$), whereas those with more than ten years reported the lowest ($M = 2.48$). This pattern suggests that familiarity with remote clinical responsibilities, emergency preparedness, resource limitations, and referral procedures may be relevant to care completion. However, the finding represents an association and does not establish that additional remote experience directly reduces missed nursing care.

Current work assignment also produced a significant difference ($F = 2.56$, $p = .042$). Nurses assigned to

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offshore medical units reported the highest missed nursing care mean (M = 2.87), while those working in occupational health units reported the lowest (M = 2.49). This variation may reflect differences in clinical demands, staffing arrangements, and accessibility of health services. Sarpong et al. (2026), in a systematic review and meta-analysis of 45 studies involving 139,454 nurses, identified limited workforce capacity as an important contributor to missed care. Although their review focused on acute care hospitals, it reinforces the importance of considering the organizational context when interpreting variations across nursing assignments.

Type of work setting demonstrated a significant difference ($F = 4.87$, $p = .009$). Offshore nurses reported higher missed nursing care ($M = 2.80$) than onshore nurses ($M = 2.53$), while nurses working in both settings obtained a mean of 2.76. The finding suggests that offshore assignments may involve additional challenges related to geographical isolation, transportation, referral coordination, and access to medical support. Nevertheless, these potential explanations require further investigation because the present analysis did not directly establish the mechanisms underlying the observed differences.

Shift pattern significantly differentiated missed nursing care ($F = 5.72$, $p < .001$). Nurses working extended or rotational shifts recorded the highest mean ($M = 2.82$), compared with those working eight-hour shifts ($M = 2.38$). This finding is consistent with Alshammari et al. (2025), who examined 183 nurses in Saudi hospitals and reported a significant association between poorer recovery between shifts and greater missed nursing care ($r = -.120$, $p = .040$). Their findings suggest that occupational fatigue and inadequate recovery may be relevant to nursing care omissions. However, the present study did not directly measure fatigue, and its contribution cannot be assumed.

Employment status did not produce a significant difference ($F = 1.98$, $p = .121$), suggesting comparable missed nursing care scores across the employment categories examined.

Average weekly working hours demonstrated a significant difference ($F = 6.31$, $p < .001$). Respondents work- ing more than 60 hours weekly reported the highest missed nursing care mean ($M = 2.93$), whereas those working fewer than 40 hours reported the lowest ($M = 2.25$). This pattern indicates that longer working hours were associated with greater reported care omissions. Gong et al. (2025), in a systematic review and meta-analysis involving 20,768 nurses, identified increased patient demands, inadequate staffing, and urgent clinical situations as prominent reasons for missed nursing care. Similarly, Al-Sawad et al. (2026) found that labor resource inadequacy and communication deficits were positively associated with missed care among nurses in Saudi Arabia. These studies support the relevance of workload and organizational resources to the present findings.

Overall, the significant differences were concentrated in variables reflecting specialized remote nursing experience, work assignment, offshore exposure, shift arrangements, and weekly working hours. The results suggest that the proposed Workforce Support Plan should emphasize adequate staffing, manageable working hours, fatigue prevention, remote-specific competency development, and accessible clinical support. However, the findings should be interpreted as statistical associations rather than causal effects, particularly because the study employed a cross-sectional design and nonprobability sampling.

Differences in the Level of Job Satisfaction According to Selected Demographic and Professional Profile Variables

The sixth research question sought to determine whether there was a significant difference in the level of job satisfaction of Filipino remote area nurses when grouped according to selected demographic and professional profile variables. Specifically, the respondents were compared according to age, total years of nursing experience, years of experience in the Kingdom of Saudi Arabia, years of experience as a remote area nurse, current work assignment, type of work setting, shift pattern, employment status, and average weekly working hours. Examining these differences provides insight into whether particular professional and work-related characteristics are associated with variations in how nurses evaluate their overall work experience. The corresponding null hypothesis stated that there was no significant difference in the level of

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job satisfaction when respondents were grouped according to selected demographic and professional characteristics. Appropriate tests of group differences were employed at the .05 level of significance. For variables with three or more categories, one-way analysis of variance was used when the assumptions for parametric analysis were adequately satisfied. Significant overall differences were followed by appropriate post hoc comparisons to determine which specific groups differed. Table 6 presents the differences in the level of job satisfaction according to selected demographic and professional profile variables.

Table 6: Differences in the Level of Job Satisfaction According to Selected Demographic and Professional Profile Variables (n = 120)

Profile Variable	F-value	p-value	Interpretation	Decision on H_0
Age	1.37	0.255	Not Significant	Fail to Reject
Total Years of Nursing Experience	1.92	0.112	Not Significant	Fail to Reject
Years of Experience in Saudi Arabia	2.04	0.093	Not Significant	Fail to Reject
Years as a Remote Area Nurse	2.74	0.047	**Significant**	Reject
Current Work Assignment	2.71	0.034	**Significant**	Reject
Type of Work Setting	4.39	0.015	**Significant**	Reject
Shift Pattern	6.18	< .001	**Significant**	Reject
Employment Status	3.36	0.021	**Significant**	Reject
Average Weekly Working Hours	7.04	< .001	**Significant**	Reject

Note. A result was considered statistically significant at $p \leq .05$.

The sixth research question examined differences in job satisfaction among Filipino remote area nurses according to selected demographic and professional characteristics. As presented in Table 6, statistically significant differences were observed according to remote area nursing experience, current work assignment, type of work setting, shift pattern, employment status, and average weekly working hours. In contrast, age, total nursing experience, and years of employment in Saudi Arabia did not significantly differentiate job satisfaction.

Age did not significantly influence the reported differences in job satisfaction ($F = 1.37$, $p = .255$). Likewise, total years of nursing experience ($F = 1.92$, $p = .112$) and years of experience in Saudi Arabia ($F = 2.04$, $p = .093$) were not significant. These findings differ from Alrashidi et al. (2026), who examined 370 emergency nurses in Saudi Arabia and found lower job satisfaction among experienced nurses than among newly graduated nurses. The contrasting findings suggest that professional experience may have different associations with job satisfaction across nursing specialties and employment environments. Furthermore, Alkhateeb et al. (2026) identified age, sex, nationality, and work schedules as factors associated with job satisfaction among 932 health care workers in Saudi public hospitals. These differences emphasize the importance of examining demographic characteristics within specific occupational contexts.

Remote area nursing experience demonstrated a statistically significant difference in job satisfaction ($F = 2.74$, $p = .047$). Nurses with more than ten years of remote experience reported the highest satisfaction ($M = 3.56$), while those with six months to two years reported the lowest ($M = 3.23$). This finding suggests that familiarity with remote nursing responsibilities, professional autonomy, geographic isolation, and operational demands may be associated with more favorable work experiences. However, longer experience does not necessarily cause higher satisfaction, as nurses who remain in remote employment may already possess stronger preferences for this specialized practice environment.

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Current work assignment also significantly differentiated job satisfaction ($F = 2.71$, $p = .034$). Occupational health nurses reported the highest satisfaction ($M = 3.53$), whereas nurses assigned to offshore medical units reported the lowest ($M = 3.20$). Similarly, type of work setting produced a significant difference ($F = 4.39$, $p = .015$), with onshore nurses reporting higher satisfaction ($M = 3.47$) than offshore nurses ($M = 3.24$). These findings suggest that geographical isolation, access to clinical resources, work responsibilities, and organizational arrangements may be relevant to satisfaction. Saleh et al. (2026) likewise identified significant associations between workplace characteristics, psychological well-being, and job satisfaction among 494 Saudi and non-Saudi nurses. However, their investigation involved hospital-based nurses, and its findings cannot be directly generalized to remote industrial settings.

Shift pattern demonstrated a significant difference in job satisfaction ($F = 6.18$, $p < .001$). Respondents working regular eight-hour shifts reported the highest satisfaction ($M = 3.62$), whereas those working extended or rotational shifts reported the lowest ($M = 3.18$). This finding agrees with Alkhateeb et al. (2026), who found that night and rotating shifts were negatively associated with job satisfaction among Saudi health care workers. Similarly, Alrashidi et al. (2026) demonstrated a significant inverse relationship between burnout and job satisfaction among emergency nurses. These studies reinforce the importance of examining work schedules, fatigue, and psychological well-being when evaluating nursing employment experiences.

Employment status also demonstrated a significant difference ($F = 3.36$, $p = .021$). Direct-hire nurses reported the highest satisfaction ($M = 3.52$), while agency- or contractor-based nurses reported comparatively lower satisfaction ($M = 3.28$). This finding suggests that compensation, employment security, organizational support, and professional development opportunities may vary across employment arrangements. Saleh et al. (2026) found that higher salary and certain institutional employment characteristics were significantly associated with higher job satisfaction. Furthermore, Alotaibi et al. (2026), in a scoping review of Saudi nursing retention studies, identified compensation equity, supportive leadership, staffing adequacy, and workplace conditions as important determinants of nurses' intention to remain employed.

Average weekly working hours demonstrated the strongest reported group difference ($F = 7.04$, $p < .001$). Nurses working fewer than 40 hours weekly obtained the highest satisfaction ($M = 3.66$), while those working more than 60 hours reported the lowest ($M = 3.17$). This pattern suggests that extended working hours may be associated with less favorable employment experiences. The finding is consistent with Alkhateeb et al. (2026), who identified differences in job satisfaction according to work schedules and employment patterns. It also supports the relevance of Almutairi et al. (2026), who found positive associations among institutional support, resilience, and job satisfaction among nurses in Riyadh.

Overall, job satisfaction differed significantly according to variables associated with remote nursing responsibilities, organizational arrangements, employment conditions, and working schedules. Offshore assignments, extended or rotational shifts, contractor-based employment, and longer working hours were associated with comparatively lower satisfaction. These findings support developing a Workforce Support Plan emphasizing equitable employment conditions, manageable schedules, fatigue prevention, access to clinical support, professional development, and employee well-being.

The second null hypothesis was rejected for remote nursing experience, current work assignment, work setting, shift pattern, employment status, and weekly working hours, but was not rejected for age, total nursing experience, or years of employment in Saudi Arabia. Since the study employed a cross-sectional design and nonprobability sampling, these differences should be interpreted as statistical associations rather than evidence of causality.

Relationship Between Missed Nursing Care and Job Satisfaction

The seventh research question sought to determine whether there was a significant relationship between the extent of missed nursing care and the level of job satisfaction among Filipino remote area nurses working in

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onshore and offshore oil and gas field settings in the Kingdom of Saudi Arabia. Examining this relationship was central to the study because it determined whether variations in the respondents' experience of delayed, partially completed, or omitted nursing care were statistically associated with how they evaluated their work and employment experience. The corresponding null hypothesis stated that there was no significant relationship between missed nursing care and job satisfaction among the respondents. The Pearson product-moment correlation coefficient was used to determine the strength and direction of the relationship between the respondents' overall missed nursing care scores and overall job satisfaction scores. Statistical significance was evaluated at the .05 level. The use of correlation was consistent with the statistical analysis procedure established for the study, wherein a negative coefficient would indicate that higher missed nursing care was associated with lower job satisfaction. Table 7 presents the relationship between missed nursing care and job satisfaction among the respondents.

Table 7: Relationship Between Missed Nursing Care and Job Satisfaction among Filipino Remote Area Nurses (n = 120)

Variables	r	p-value	Interpretation	Decision on H_0
Missed Nursing Care and Job Satisfaction	−0.47	< .001	Moderate Negative Significant Relationship	Reject

Note. Statistical significance was set at $p \leq .05$. A negative correlation coefficient indicates an inverse relationship between the variables.

The seventh research question determined the relationship between missed nursing care and job satisfaction among Filipino remote area nurses working in selected onshore and offshore oil and gas field settings in the Kingdom of Saudi Arabia. As presented in Table 7, Pearson correlation analysis revealed a statistically significant moderate negative relationship between missed nursing care and job satisfaction ($r = -0.47$, $p < .001$). This indicates that respondents who reported higher levels of missed nursing care tended to experience lower job satisfaction. Conversely, those reporting fewer care omissions generally demonstrated higher satisfaction with their work.

The finding is consistent with Alshammari et al. (2025), who investigated 366 nurses in Saudi government hospitals and identified a significant negative association between missed nursing care and job satisfaction ($r = -0.267$, $p < .001$). Their study also reported moderate job satisfaction among most respondents and identified staffing shortages and high patient loads as prominent reasons for missed care. Although the present study demonstrated a stronger negative correlation, both investigations indicate that greater missed nursing care is associated with lower job satisfaction. The difference in correlation magnitude may reflect variations in nursing populations, measurement instruments, and practice environments.

Similarly, Algin et al. (2024), in a systematic review and meta-analysis involving eight studies and 10,418 nurses, reported a significant negative association between missed nursing care and job satisfaction, with a pooled correlation coefficient of $r = -0.294$ (95% CI [−0.364, −0.219], $p < .001$). The present study's correlation of −0.47 is stronger than the pooled estimate, suggesting that the relationship may be particularly relevant among the participating Filipino remote area nurses. However, this difference should not be interpreted as evidence of a statistically stronger association without a formal comparison.

More recent evidence further supports this relationship. Iddrisu et al. (2026), in a cross-sectional study involving 239 registered nurses at Tamale Teaching Hospital in Ghana, identified a significant negative correlation between missed nursing care and the job satisfaction dimension of patient safety attitudes ($\rho = -0.40$, $p < .001$). The researchers also found negative associations between missed care and teamwork climate and safety climate. These findings suggest that nurses' professional satisfaction, teamwork, and organizational conditions may be interconnected with their experiences of care omission.

Paquay et al. (2026) examined 3,613 hospital nurses in Belgium and reported that greater logistical and administrative workload was associated with both increased missed nursing care and job dissatisfaction. Specifically, higher administrative workload was associated with greater odds of job dissatisfaction

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(adjusted OR = 1.15) and increased missed care (adjusted IRR = 1.12). Although this investigation did not report the same correlation coefficient as the present study, it provides additional evidence that organizational workload may be relevant to both nursing care completion and job satisfaction.

Cheon et al. (2025) also examined missed nursing care and job satisfaction within a predictive correlational study involving 208 clinical nurses in South Korea. Their investigation considered both variables within a model linking presenteeism and turnover intention, reinforcing the importance of examining missed care and satisfaction together when studying nursing workforce outcomes.

The present findings are also consistent with the preceding descriptive and comparative results. Respondents reported a moderate extent of missed nursing care (M = 2.64, SD = 0.59) and moderate job satisfaction (M = 3.39, SD = 0.61). Documentation and communication, patient education, and referral coordination were the most affected care domains, while workload and work schedule and compensation and benefits received comparatively lower satisfaction ratings. Furthermore, offshore assignments, extended or rotational schedules, and longer weekly working hours were associated with differences in both missed nursing care and job satisfaction.

These patterns are consistent with the Donabedian Structure–Process–Outcome framework adopted in the study. Structural conditions, including staffing, workload, work schedules, resources, and medical support, provide the context within which nursing care is delivered. Missed nursing care represents an indicator of care processes, while job satisfaction serves as a workforce-related outcome. The significant negative correlation supports the proposed association between the two variables but does not establish a causal relationship.

The coefficient of determination corresponding to the correlation was approximately $r^2 = .22$, indicating that the two variables shared about 22% of their variance in a simple linear relationship. This does not mean that missed nursing care caused 22% of job satisfaction or dissatisfaction. Other factors, including employment arrangements, professional autonomy, organizational support, compensation, and remote work conditions, may also contribute to job satisfaction.

With respect to the third null hypothesis, H_{03} was rejected because the correlation was statistically significant ($p < .001$). Overall, the findings demonstrate that greater missed nursing care was associated with lower job satisfaction among the participating Filipino remote area nurses. Consistent with recent international and Saudi evidence, the findings support developing workforce initiatives addressing staffing adequacy, workload management, communication, referral coordination, and organizational support. However, the cross-sectional design and self-reported data limit causal interpretation and generalizability beyond the sampled nurses.

Predictors of Job Satisfaction

The eighth research question sought to determine which selected variables significantly predicted the level of job satisfaction among Filipino remote area nurses working in onshore and offshore oil and gas field settings in the Kingdom of Saudi Arabia. Specifically, the analysis considered the extent of missed nursing care, perceived reasons for missed nursing care, and selected demographic and professional characteristics that were theoretically and empirically relevant to the respondents' work experience. Multiple linear regression analysis was used to determine the collective contribution of these variables to job satisfaction and to identify the predictors that independently contributed to variations in the respondents' overall job satisfaction scores. The corresponding null hypothesis stated that missed nursing care and selected demographic and professional variables did not significantly predict job satisfaction.

For the regression analysis, the overall job satisfaction composite score served as the dependent variable. The predictor variables included overall missed nursing care, perceived reasons for missed nursing care, total nursing experience, remote area nursing experience, type of work setting, shift arrangement, and

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average weekly working hours. Selected categorical characteristics were represented through appropriate contrasts in the regression model.

The multiple regression model was statistically significant, $F(7, 112) = 14.19$, $p < .001$, with $R = .69$, $R^2 = .47$, and adjusted $R^2 = .44$. This indicates that the variables included in the model collectively accounted for approximately 47% of the variation in overall job satisfaction among the respondents. The remaining variation may be associated with other individual, organizational, professional, or contextual factors not included in the model. Table 8 presents the results of the multiple regression analysis predicting job satisfaction.

Table 8: Multiple Regression Analysis Predicting Job Satisfaction among Filipino Remote Area Nurses (n = 120)

Predictor	B	SE	β	t	p-value	Interpretation
Constant	4.63	0.32	—	14.47	< .001	—
Overall Missed Nursing Care	−0.34	0.08	−.33	−4.25	< .001	Significant
Perceived Reasons for Missed Nursing Care	−0.10	0.07	−.11	−1.43	0.156	Not Significant
Longer Total Nursing Experience	0.05	0.08	0.04	0.63	0.53	Not Significant
Greater Remote Area Nursing Experience	0.17	0.08	0.14	2.13	0.035	Significant
Offshore Work Exposure	−0.16	0.07	−.15	−2.29	0.024	Significant
Extended/Rotational Work Arrangement	−0.22	0.08	−.19	−2.75	0.007	Significant
Working More Than 48 Hours per Week	−0.25	0.08	−.23	−3.13	0.002	Significant

Note. B = unstandardized regression coefficient; SE = standard error; β = standardized regression coefficient. Statistical significance was set at $p \leq .05$. Positive coefficients indicate higher predicted job satisfaction, whereas negative coefficients indicate lower predicted job satisfaction when the other variables in the model are held constant.

The eighth research question determined the significant predictors of job satisfaction among Filipino remote area nurses in selected onshore and offshore oil and gas field settings in the Kingdom of Saudi Arabia. As presented in Table 8, the multiple regression model was statistically significant, $F(7, 112) = 14.19$, $p < .001$, with $R^2 = .47$ and adjusted $R^2 = .44$. The findings indicate that the selected predictors collectively accounted for approximately 47% of the observed variation in job satisfaction, suggesting that nursing care experiences and professional working conditions were meaningfully associated with how respondents evaluated their employment.

Missed nursing care emerged as the strongest significant predictor of job satisfaction ($B = −0.34$, $\beta = −.33$, $p < .001$). This indicates that higher missed nursing care scores were associated with lower job satisfaction after adjustment for the other variables. The finding agrees with Alshammari et al. (2025), who reported a significant negative association between missed nursing care and job satisfaction ($r = −0.267$, $p < .001$) among 366 nurses in Saudi government hospitals. Similarly, Algin et al. (2024), in a systematic review and meta-analysis, identified a significant inverse relationship between missed nursing care and job satisfaction. These studies support the importance of care completion as a workforce-related concern, although their findings primarily reflect conventional hospital settings.

The perceived reasons for missed nursing care did not independently predict job satisfaction ($B = −0.10$, $\beta = −.11$, $p = .156$). Although workload, staffing, logistical limitations, and resource availability were identified as relevant reasons for missed care, their combined score did not demonstrate an independent association with job satisfaction after adjustment. This does not imply that these organizational conditions were

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unimportant. Alshammari et al. (2025) identified inadequate staffing and high patient loads as prominent reasons for missed nursing care. The nonsignificant result in the present study may reflect overlapping relationships among perceived reasons, actual missed care, work schedules, and weekly working hours.

Total nursing experience was also not a significant predictor (B = 0.05, β = .04, p = .530). In contrast, remote area nursing experience positively predicted job satisfaction (B = 0.17, β = .14, p = .035). This finding suggests that experience acquired specifically in remote industrial nursing may be more relevant to satisfaction than general nursing experience. Nurses with longer remote practice experience may be more familiar with geographical isolation, emergency responsibilities, independent decision-making, and referral procedures. Nevertheless, this explanation remains tentative because the study did not establish whether greater experience increased satisfaction or whether nurses who were already satisfied remained longer in remote employment.

Offshore work exposure significantly and negatively predicted job satisfaction (B = −0.16, β = −.15, p = .024). Respondents exposed to offshore assignments reported comparatively lower adjusted satisfaction scores than their reference group. This finding may reflect the distinctive conditions of offshore nursing, including isolation, rotational assignments, transportation limitations, and dependence on remote clinical support. However, the result should be interpreted within the specific operational context of the participating nurses rather than generalized to all offshore health care workers.

Extended or rotational work arrangements also negatively predicted job satisfaction (B = −0.22, β = −.19, p = .007). This finding is relevant to recent Saudi evidence concerning scheduling and occupational fatigue. Al-Sawad et al. (2026) evaluated a transition from eight-hour to twelve-hour shifts in a Saudi tertiary hospital and reported improvements in occupational fatigue, burnout, and sickness absenteeism following a scheduling intervention that included protected recovery periods and fatigue-management measures. Their findings suggest that the relationship between shift arrangements and occupational outcomes may depend on scheduling design and recovery support rather than shift duration alone.

Similarly, Alanmi et al. (2026) examined occupational fatigue among nurses working twelve-hour shifts in Jeddah and found that greater night-shift impacts were associated with increased fatigue and poorer recovery between shifts. Their findings reinforce the importance of adequate rest periods, balanced scheduling, and organizational support. These studies provide relevant evidence for interpreting the present association between extended or rotational arrangements and lower satisfaction, although they did not directly examine Filipino remote area nurses.

Working more than 48 hours weekly was another significant negative predictor of job satisfaction (B = −0.25, β = −.23, p = .002). This indicates that respondents with longer weekly working hours tended to report lower satisfaction after adjustment for the other predictors. The finding complements the earlier descriptive results, where workload and work schedule received the lowest satisfaction rating. It also highlights the potential importance of cumulative work demands and opportunities for rest and recovery in remote nursing environments.

Recent evidence further emphasizes the importance of organizational support and professional development. Almutairi et al. (2026), in a cross-sectional study involving 190 registered nurses from three hospitals in Riyadh, found that perceived skill development and institutional support were positively associated with resilience, which was also positively correlated with job satisfaction (r = .48). Although these variables were not directly included in the present regression model, their findings suggest that workforce support and professional development may represent additional considerations when examining nursing job satisfaction.

Overall, missed nursing care demonstrated the largest standardized regression coefficient (β = −.33), followed by working more than 48 hours weekly (β = −.23), extended or rotational work arrangements (β = −.19), offshore exposure (β = −.15), and remote nursing experience (β = .14). These results suggest that job satisfaction was associated with both nursing care processes and the operational conditions of remote practice.

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The findings are consistent with the Donabedian Structure–Process–Outcome framework, wherein work schedules, employment conditions, and geographical characteristics represent structural factors, missed nursing care reflects the care process, and job satisfaction represents a workforce-related outcome. However, because the study employed a cross-sectional design, statistical prediction should not be interpreted as evidence of causation.

Interpretive caution: The regression coefficients describe conditional statistical associations in a single-time-point, nonprobability sample. Neither the sign nor magnitude of an adjusted coefficient demonstrates that changing missed nursing care, shift schedules, or offshore assignments would cause a corresponding change in job satisfaction. Reciprocal relationships, residual confounding, shared self-report measurement, and selection effects remain plausible. The findings therefore identify targets for further examination, not tested intervention effects.

The fourth null hypothesis was rejected because the overall regression model was statistically significant. Nevertheless, perceived reasons for missed nursing care and total nursing experience were not significant individual predictors. The findings provide a basis for developing a Workforce Support Plan emphasizing workload management, appropriate scheduling, fatigue prevention, remote clinical support, professional development, and strategies to reduce missed nursing care among Filipino remote area nurses.

Proposed Workforce Support Plan for Filipino Remote Area Nurses

The ninth research question sought to determine what workforce support plan could be proposed based on the findings of the study. The proposed plan was developed by integrating the major findings concerning the respondents' demographic and professional characteristics, extent of missed nursing care, perceived reasons for missed nursing care, level of job satisfaction, significant group differences, relationship between missed nursing care and job satisfaction, and predictors of job satisfaction.

The findings indicated that missed nursing care occurred at a moderate extent, with documentation and communication, patient education and health promotion, and referral and coordination of care emerging as the comparatively more affected areas. In terms of perceived reasons, workload and competing demands, staffing adequacy, distance and logistical limitations, accessibility of medical support, and work environment conditions were identified as the more prominent factors associated with missed nursing care. The respondents likewise demonstrated a moderate overall level of job satisfaction, with workload and work schedule, compensation and benefits, professional growth and development, and safety and working conditions receiving comparatively lower ratings.

The inferential findings further showed that work-related characteristics were particularly relevant to the respondents' experiences. Missed nursing care and job satisfaction differed significantly according to several characteristics associated with remote work, including remote area nursing experience, work assignment, type of work setting, shift pattern, and average weekly working hours.

A significant negative relationship was also found between missed nursing care and job satisfaction, indicating that respondents reporting higher missed nursing care tended to report lower job satisfaction. The regression analysis further identified missed nursing care, remote area nursing experience, offshore work exposure, extended or rotational work arrangements, and longer weekly working hours as significant predictors of job satisfaction.

Based on these findings, a Workforce Support Plan for Filipino Remote Area Nurses is proposed. The plan is intended to provide a practical framework that may guide health care administrators, occupational health leaders, nursing supervisors, contractors, and other concerned stakeholders in strengthening the work environment of nurses assigned to remote onshore and offshore oil and gas field settings. It focuses on areas that were repeatedly identified across the findings rather than on isolated concerns.

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Table 9:Proposed Workforce Support Plan for Filipino Remote Area Nurses in Onshore and Offshore Oil and Gas Field Settings

Priority Area	Basis from the Findings	Objectives	Proposed Strategies and Activities	Responsible Persons/Units	Suggested Time Frame	Indicators of Achievement
1. Workload and Staffing Management	Workload and competing demands ranked highest among the perceived reasons for missed nursing care; staffing adequacy was also highly rated. Longer weekly working hours were associated with greater missed care and lower job satisfaction.	To promote a more manageable distribution of nursing responsibilities and reduce conditions associated with missed nursing care.	Conduct periodic staffing and workload assessments; review nurse-to-work-demand requirements per field site; establish workload distribution protocols; identify peak-demand periods; provide contingency or reliever staffing when feasible; review the assignment of non-nursing and administrative duties to remote nurses.	Nursing administration, occupational health management, HR, site medical leadership, operations management	Initial review within 3 months; quarterly monitoring thereafter	Reduced frequency of excessive workloads; improved staffing coverage; reduced reported missed care; fewer instances of prolonged or excessive duty hours
2. Shift Scheduling and Fatigue Risk Management	Extended or rotational shifts and working more than 48 hours per week were associated with lower job satisfaction; extended schedules were also associated with greater missed nursing care.	To minimize fatigue-related work burden and support adequate recovery between duty periods.	Review extended and rotational duty schedules; establish appropriate rest and recovery periods; monitor consecutive duty hours; develop fatigue-risk reporting procedures; provide appropriate	HR, nursing administration, occupational health department, site supervisors, operations management	Within 3–6 months; ongoing monitoring	Improved compliance with work-rest schedules; reduction in excessive duty periods; improved workload/work-schedule satisfaction; reduced fatigue-related concerns

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			relief coverage; consider equitable rotation of demanding shifts; periodically assess nurse fatigue and work-rest balance.			
3. Missed Nursing Care Reduction and Care Completion System	Documentation and communication ranked highest in missed nursing care, followed by patient education and health promotion and referral and coordination of care.	To improve completion of nursing activities that are most vulnerable to delay, partial completion, or omission.	Develop a standardized care-completion checklist; establish structured handover and endorsement procedures; introduce concise documentation templates appropriate for remote practice; designate protected time when feasible for documentation; use referral and follow-up tracking tools; incorporate patient education prompts into routine nursing records; conduct periodic missed-care reviews focused on system improvement rather than individual	Nursing supervisors, remote area nurses, quality improvement unit, occupational health leadership	Development within 3 months; implementation within 6 months	Improved completion of documentation; fewer incomplete endorsements; improved referral follow-up; increased completion of patient education activities; reduction in reported missed nursing care

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			blame.			
4. Remote Medical Support and Referral Enhancement	Distance and logistical limitations and accessibility of medical support were among the major contextual concerns; offshore respondents reported comparatively greater missed care and lower job satisfaction.	To strengthen access to timely clinical consultation, referral, and higher-level medical support in remote locations.	Establish clearly defined physician consultation pathways; strengthen teleconsultation or remote clinical support where permitted; maintain updated emergency referral directories and protocols; develop escalation criteria for urgent cases; coordinate transportation and medical evacuation procedures; conduct regular simulations of referral and emergency transfer processes; establish backup communication procedures.	Medical director, occupational health leadership, nursing administration, emergency response team, logistics and operations units	Within 3–6 months; drills at least semiannually	Shorter consultation and referral delays; documented referral pathways; improved access to medical support; completion of regular emergency and transfer drills; increased staff confidence in referral procedures
5. Offshore and High-Risk Assignment Support	Offshore work exposure was associated with greater missed nursing care and lower job satisfaction and remained a significant negative predictor of job satisfaction.	To provide additional support for nurses exposed to the distinctive demands of offshore and highly remote assignments.	Conduct site-specific workload and resource reviews; provide structured predeployment orientation; ensure access to communication and consultation resources;	Offshore medical leadership, occupational health management, nursing administration, HR, operations and logistics	Before deployment and throughout each rotation	Improved offshore nurse satisfaction; reduced missed-care scores; increased perceived management support; improved availability of essential resources and clinical

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			establish regular supervisory check-ins; review rotation duration and recovery periods; maintain adequate emergency supplies and equipment; provide structured postrotation feedback opportunities.			support
6. Professional Development and Remote Nursing Competency	Professional growth and development received only moderate satisfaction; greater remote area nursing experience was positively associated with job satisfaction.	To strengthen clinical competence, confidence, adaptability, and professional development among remote area nurses.	Develop a structured remote nursing competency program; provide training in emergency response, occupational health, remote assessment, referral decision-making, documentation, communication, and autonomous nursing practice; establish mentorship between experienced and less experienced remote nurses; provide continuing professional development opportunities	Nursing education unit, nursing administration, occupational health leadership, experienced remote area nurse mentors	Orientation upon assignment; continuing activities every 6–12 months	Increased training participation; competency completion rates; improved confidence among newer remote nurses; improved professional-development satisfaction

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			accessible during rotations; create individualized development plans.			
7. Mentorship and Transition Support for New Remote Area Nurses	Nurses with shorter remote area nursing experience reported comparatively greater missed nursing care and lower job satisfaction, while greater remote experience positively predicted satisfaction.	To facilitate adjustment of nurses newly entering remote field practice.	Implement a formal onboarding and mentorship program; assign experienced remote nurse mentors; conduct orientation on site-specific workflows, emergency procedures, referral systems, occupational health responsibilities, documentation standards, and cultural or organizational practices; conduct scheduled adjustment reviews during the first year of remote assignment.	Nursing administration, clinical educators, senior remote area nurses, HR	First 6–12 months of remote assignment	Improved retention of newly assigned nurses; improved competency evaluations; lower reported missed care among newer nurses; improved job satisfaction during transition
8. Management Support, Recognition, and Employee Engagement	Supervision and management support was rated positively but remained an area for continued support; recognition and	To strengthen organizational support, communication, participation, and recognition of remote area nurses.	Conduct regular virtual or onsite management rounds; establish confidential feedback mechanisms; include remote nurses in relevant policy	Nursing leadership, occupational health management, HR, site administration	Quarterly and ongoing	Increased perceived management support; higher participation in workforce feedback activities; timely resolution of identified

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	organizational conditions may contribute to overall work experience.		and workflow discussions; recognize exemplary clinical and safety performance; provide timely management responses to field concerns; conduct periodic workforce engagement sessions.			concerns; improved employee engagement
9. Compensation, Benefits, and Employment Support Review	Compensation and benefits was among the lower-rated job satisfaction dimensions; employment status significantly differentiated job satisfaction, with agency- or contractor-based nurses reporting comparatively lower satisfaction.	To identify employment-related concerns that may influence workforce satisfaction and retention.	Periodically review compensation and benefits relative to remote-work responsibilities; assess remote-site, offshore, rotational, and hardship benefits where applicable; ensure transparency regarding employment benefits and entitlements; establish channels for contractor-based nurses to raise employment concerns; examine equitable access to development and recognition opportunities across employment arrangements.	HR, contracting organizations, organizational leadership, finance and compensation units	Annual review	Improved satisfaction with compensation and benefits; reduced employment-related concerns; improved perceived fairness; improved retention intentions

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10. Workforce Well-Being and Psychosocial Support	Respondents worked under prolonged, rotational, isolated, and geographically remote conditions; work environment conditions were identified as a contributing factor to missed nursing care.	To support the psychological and social well-being of nurses working under remote and rotational conditions.	Provide confidential employee assistance or psychosocial support services; promote access to counseling where available; develop peer-support mechanisms; encourage adequate rest and recovery; provide opportunities for social connection during remote assignments; orient nurses to available mental health and well-being resources.	Occupational health unit, HR, employee assistance services, nursing leadership	Ongoing	Utilization of available support services; improved well-being assessments; increased awareness of available resources; reduced reported work-related strain
11. Continuous Monitoring of Missed Nursing Care and Job Satisfaction	A significant negative relationship was found between missed nursing care and job satisfaction, and missed nursing care emerged as the strongest predictor of job satisfaction in the proposed regression model.	To establish an ongoing mechanism for identifying emerging workforce and care-process concerns.	Conduct periodic anonymous assessments of missed nursing care and job satisfaction; monitor workload, duty hours, referral delays, staffing concerns, and selected care-completion indicators; compare findings across work settings while protecting confidentiality; develop corrective	Quality improvement unit, nursing administration, occupational health management, HR	Baseline then every 6–12 months	Availability of periodic workforce reports; reduction in missed-care indicators; improvement in job satisfaction scores; documented corrective actions; annual review of the Workforce Support Plan Organization-specific baseline and follow-up: missed-care or near-miss log rate per 100

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			actions based on trends; review Workforce Support Plan implementation annually.			encounters; percentage of complete nursing documentation and handovers from authorized EHR audit trails; referral timeliness; quarterly process audits; and repeated anonymous satisfaction and missed-care survey scores every 6–12 months. Interpret trends with service volume and reporting completeness; report only aggregated de-identified results.

Implementation of the Proposed Workforce Support Plan

The proposed Workforce Support Plan emphasizes a systems-oriented and supportive approach rather than attributing missed nursing care or dissatisfaction solely to individual nurses. The findings suggest that many of the concerns identified in the study were connected with work organization, workload, staffing, scheduling, geographic isolation, logistical limitations, and accessibility of higher-level medical support. Consequently, interventions should address both the nursing care process and the structural conditions surrounding remote nursing practice.

Priority may initially be given to workload and staffing management, scheduling and fatigue management, and reduction of missed nursing care, as these areas repeatedly emerged across the descriptive and inferential findings. Workload and competing demands represented the highest-ranked perceived reason for missed nursing care, while extended and rotational work arrangements and longer weekly working hours were associated with unfavorable outcomes. Addressing these concerns may therefore offer a practical starting point for organizations seeking to strengthen remote nursing practice.

A second major priority involves strengthening documentation, communication, referral, and coordination systems. These nursing activities were among the areas most frequently affected by missed care. Strategies such as structured handovers, streamlined documentation, referral tracking, and clearly defined communication pathways may help nurses complete these responsibilities more consistently despite competing clinical demands.

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Additional attention should be directed toward offshore and highly remote assignments. Offshore exposure was associated with both greater missed nursing care and lower job satisfaction. The proposed plan therefore recommends enhanced clinical consultation, logistical support, structured rotations, communication systems, and site-specific workforce reviews for nurses working under these conditions.

The findings also highlight the potential value of professional development and mentorship. Greater remote area nursing experience was associated with higher job satisfaction, while respondents with less remote nursing experience tended to experience less favorable outcomes. Structured orientation, mentoring, competency development, and continuing professional education may therefore assist nurses in adapting to the specialized demands of remote field practice.

At the organizational level, management support, recognition, compensation and benefits, employment conditions, and psychosocial well-being should likewise be considered. Although the respondents generally valued the nature of their work, professional autonomy, and interpersonal relationships, their satisfaction was more moderate in several employment-related and working-condition dimensions. Strengthening these areas may help organizations support both workforce well-being and retention.

The implementation of the proposed plan should be collaborative and context-sensitive. Nursing administrators, occupational health leaders, human resource personnel, medical directors, contractors, site management, operations and logistics personnel, and remote area nurses themselves should participate in determining which strategies are feasible within the operational requirements of each setting. The plan is not intended to prescribe identical interventions across all sites; rather, it provides a framework that may be adapted according to local staffing structures, organizational policies, resources, and regulatory requirements.

Regular evaluation should form an integral part of the plan. Organizations may periodically reassess missed nursing care, job satisfaction, staffing adequacy, workload, working hours, referral processes, and workforce concerns. Changes in these indicators may be used to determine whether implemented strategies are producing the intended improvements and whether additional interventions are required.

For implementation evaluation, each participating organization should establish its own confidential pre-intervention baseline, definitions, denominators, and feasible targets before adopting recommendations. Suggested indicators include documented care-omission or near-miss reports per 100 clinical encounters, the proportion of required assessment and education records completed, overdue documentation and handover entries identified in electronic health record audit trails, referral requests completed within local target times, median consultation or transfer coordination intervals, rostered hours and rest-period compliance, and repeated anonymous job-satisfaction and missed-care scores. Existing incident logs, quality registers, and authorized electronic health record audit trails may provide objective process measures, subject to local information-governance and access approvals. Review indicators at baseline and at agreed intervals (for example, quarterly for care processes and every 6–12 months for workforce surveys), alongside case-mix, reporting completeness, and changes in staffing or service volume. Trend changes should be treated as signals for quality improvement rather than proof of intervention causality; audit data must be de-identified for reporting, used for system improvement rather than individual blame, and never used to identify the participating nurses or companies in this study.

Overall, the proposed Workforce Support Plan for Filipino Remote Area Nurses translates the findings of the study into practical areas for organizational action. It prioritizes workload and staffing management, safe scheduling, reduction of missed nursing care, strengthened medical and logistical support, offshore-specific assistance, professional development, mentorship, employment support, workforce well-being, and continuous monitoring. By addressing the work conditions and nursing processes that emerged as relevant in the study, the plan may serve as a guide for strengthening the professional experience of Filipino remote area nurses and supporting the consistent delivery of nursing care in onshore and offshore oil and gas field settings.

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Future triangulation should combine the current survey findings with voluntary, confidential interviews or focus groups and, where feasible and ethically authorized, direct observation or de-identified electronic documentation audits. This would help assess the reasons behind reported omissions and distinguish perceived workflow constraints from observable care-process gaps without treating retrospective associations as causal evidence.

Summary

This study examined the relationship between missed nursing care and job satisfaction among Filipino remote area nurses working in selected onshore and offshore oil and gas field settings in the Kingdom of Saudi Arabia. Specifically, it determined the respondents' demographic and professional characteristics, extent and perceived reasons for missed nursing care, level of job satisfaction, significant group differences, relationship between the principal variables, and predictors of job satisfaction. The findings served as the basis for developing a Workforce Support Plan. A quantitative descriptive-correlational, cross-sectional research design was employed among 120 Filipino registered nurses selected through purposive sampling supplemented by referral-based recruitment. Data were collected using a structured questionnaire and analyzed through descriptive statistics, group comparisons, Pearson correlation, and multiple linear regression at the .05 significance level. The respondents were predominantly male, married, Bachelor of Science in Nursing graduates, and aged 30–39 years. Most had considerable nursing experience, while onshore assignments represented the largest work-setting category. Twelve-hour and extended or rotational shifts were common, and most respondents worked more than 48 hours weekly.

Findings revealed a moderate extent of missed nursing care ($M = 2.64$, $SD = 0.59$). Documentation and communication, patient education and health promotion, and referral coordination were the most affected domains. Conversely, basic nursing care, medication and treatment-related care, and emergency preparedness were less frequently missed. Perceived reasons for missed care were rated as moderate ($M = 3.64$, $SD = 0.58$), with workload and competing demands, staffing inadequacy, and distance and logistical limitations emerging as the leading concerns. Respondents reported moderate job satisfaction ($M = 3.39$, $SD = 0.61$). Nature of work, professional autonomy, interpersonal relationships, and management support received relatively higher satisfaction ratings, whereas workload and work schedule, compensation and benefits, professional development, and working conditions received lower ratings. Significant differences in missed nursing care were identified according to remote nursing experience, current work assignment, work setting, shift pattern, and weekly working hours. Job satisfaction significantly differed according to these characteristics and employment status. Generally, offshore assignments, extended or rotational schedules, and longer working hours were associated with greater missed nursing care and lower satisfaction. Pearson correlation revealed a significant moderate negative relationship between missed nursing care and job satisfaction ($r = -0.47$, $p < .001$). Multiple regression analysis significantly predicted job satisfaction, $F(7, 112) = 14.19$, $p < .001$, explaining approximately 47% of its observed variance ($R^2 = .47$). Missed nursing care emerged as the strongest negative predictor ($\beta = -.33$), followed by longer working hours, extended or rotational arrangements, and offshore exposure. Greater remote nursing experience positively predicted satisfaction. Based on these findings, a Workforce Support Plan was developed to address staffing, workload management, fatigue prevention, scheduling, referral coordination, medical support accessibility, professional development, and employee well-being. Overall, the study emphasized the importance of organizational and operational conditions in understanding missed nursing care and job satisfaction, without establishing causal relationships.

CONCLUSIONS

The study concluded that Filipino remote area nurses working in selected onshore and offshore oil and gas field settings in Saudi Arabia experienced moderate missed nursing care and job satisfaction. Documentation and communication, patient education, and referral coordination were the most frequently missed activities, while medication-related care and emergency preparedness were less affected. Workload, staffing inadequacy, geographical isolation, and logistical limitations emerged as prominent contributing factors.

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Respondents expressed greater satisfaction with their professional responsibilities, autonomy, interpersonal relationships, and management support. However, workload, work schedules, compensation, professional development, and working conditions received comparatively lower satisfaction ratings. Significant differences in missed nursing care and job satisfaction were associated primarily with remote nursing experience, work assignments, offshore exposure, shift arrangements, and weekly working hours.

A statistically significant moderate inverse association was observed between reported missed nursing care and job satisfaction. Missed nursing care had the largest negative standardized coefficient in the fitted regression model; longer working hours, rotational schedules, and offshore exposure were also associated with lower satisfaction, while greater remote nursing experience was associated with higher satisfaction. These coefficients represent associations within the surveyed sample and cannot determine temporal direction or demonstrate causal effects.

Overall, the findings emphasize the importance of strengthening staffing, workload management, scheduling, medical support, and professional development. The proposed Workforce Support Plan offers context-sensitive priorities for possible quality improvement, but its effectiveness remains to be established through baseline measurement and longitudinal evaluation using objective care-process indicators alongside repeated anonymous workforce surveys. No improvement or causal benefit can be concluded from the present cross-sectional findings.

RECOMMENDATIONS

Based on the significant findings and conclusions of the study, the following recommendations are proposed to improve nursing care delivery and job satisfaction among Filipino remote area nurses working in onshore and offshore oil and gas field settings in the Kingdom of Saudi Arabia.

Filipino Remote Area Nurses. Nurses are encouraged to strengthen clinical prioritization, documentation, communication, patient education, and referral coordination to minimize missed nursing care. They should also actively participate in professional development, workplace safety initiatives, and appropriate reporting of workload-related concerns.

Nursing Professionals. Nursing professionals should promote evidence-based nursing practices, effective teamwork, professional accountability, and timely completion of essential nursing interventions, particularly in geographically isolated and resource-limited environments.

Nursing Administrators and Occupational Health Leaders. Administrators should regularly evaluate staffing adequacy, workload distribution, shift arrangements, and weekly working hours. Particular attention should be given to reducing excessive workloads, preventing occupational fatigue, and strengthening supervisory and professional support.

Oil and Gas Field Health Care Organizations. Organizations should improve access to medical consultation, referral systems, emergency resources, and logistical support. Employment conditions, compensation, and professional development opportunities should also be reviewed to promote workforce satisfaction and retention.

Nursing Educators. Nursing educators should integrate remote area nursing, occupational health, clinical

prioritization, emergency preparedness, and missed nursing care prevention into educational programs and continuing professional development activities.

Nursing Students. Students should develop clinical decision-making, communication, adaptability, and emergency response competencies to prepare for nursing responsibilities in specialized and remote health care environments.

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Future Researchers. Future research should use larger, more diverse samples and longitudinal or mixed-methods designs. Confidential qualitative interviews and focus groups with remote nurses, occupational health managers, and relevant clinical support personnel could explain why specific care activities are postponed and how shift arrangements and medical-access constraints are experienced. With appropriate independent ethics and institutional approvals, direct observational audits, de-identified clinical record reviews, structured documentation audits, and incident-report trends could triangulate the self-reported survey findings. Such follow-up studies could examine burnout, fatigue, organizational support, and turnover intention while protecting participant and employer confidentiality.

Workforce Support Plan. The proposed Workforce Support Plan should be considered for implementation and evaluation, focusing on staffing, workload management, fatigue prevention, professional development, medical support accessibility, and employee well-being. Its effectiveness should be assessed through measurable indicators of missed nursing care and job satisfaction.

LIMITATIONS OF THE STUDY

This study acknowledged several limitations in examining missed nursing care and job satisfaction among Filipino remote area nurses working in selected onshore and offshore oil and gas field settings in the Kingdom of Saudi Arabia. First, the study employed a quantitative descriptive-correlational, cross-sectional research design, which examined the variables during a single period of data collection. Consequently, the findings established statistical associations and identified significant predictors but did not demonstrate causal relationships between missed nursing care and job satisfaction.

The study involved 120 Filipino registered nurses selected through purposive sampling supplemented by snowball sampling. Although these techniques facilitated access to a specialized nursing population, the use of nonprobability sampling limited the representativeness and generalizability of the findings. Furthermore, the study was confined to selected remote onshore and offshore oil and gas field settings in Saudi Arabia; therefore, the results may not accurately represent nurses working in other industries, conventional hospitals, or remote health care environments in different countries.

Another limitation involved the use of self-reported data obtained through a structured questionnaire. Respondents' answers may have been influenced by recall bias, social desirability, or reluctance to disclose missed nursing care because of concerns regarding professional accountability. Although the instrument underwent content validation and reliability testing, its adaptation to remote industrial nursing practice may require further psychometric evaluation. Additionally, the study did not include direct clinical observations, patient record reviews, or objective assessments of nursing care quality to independently verify the reported findings.

The study also examined only selected demographic, professional, and organizational variables. Other potentially relevant factors, including burnout, psychological distress, resilience, leadership practices, organizational culture, and turnover intention, were not comprehensively investigated. Although multiple regression analysis identified significant predictors of job satisfaction, unexplained variation remained, indicating that additional factors may influence the respondents' professional experiences.

Furthermore, organizational confidentiality requirements prevented the disclosure of specific companies, contractors, field clinics, offshore platforms, and exact operational locations. Consequently, comparisons between individual organizations and facilities were not undertaken. The findings also reflected the respondents' experiences during the study period and may differ under changing staffing arrangements, work schedules, organizational policies, and operational conditions.

Despite these limitations, the study provides context-specific evidence regarding missed nursing care and job satisfaction among Filipino remote area nurses. The findings may serve as a foundation for developing appropriate workforce support initiatives and conducting future studies using larger representative samples, longitudinal designs, and objective indicators of nursing care quality.

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An additional limitation concerns measurement transferability: the adapted English questionnaires were assessed for expert-rated relevance and internal consistency, but the study did not document cognitive interviewing, formal cross-cultural measurement equivalence, or objective corroboration of the reported missed-care events. Future mixed-methods work and consented, de-identified observational or record-based audits may clarify these issues.

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