

FACTORS INFLUENCING NURSES INTENT TO STAY AT A CANCER SPECIALIZED CENTRE IN OMAN

Aed Banibakr*¹, Kefah Hassan², Hassan Nasr³, Mohamad Majed⁴, Nabiha Al Hasni⁵, Ali Majed³, Mohammed wafqa¹, Huda Al-Awaisi⁶

1. Critical Care Unit, Department of Nursing, Sultan Qaboos Comprehensive Cancer Care and Research Centre, University Medical City, Muscat, Oman.
Department of Dental Science, Advance Medical and Dental institute, University Sains Malaysia, Penang, Malaysia
2. Nursing Manager, Department of Nursing, Sultan Qaboos Comprehensive Cancer Care and Research Centre, University Medical City, Muscat, Oman.
3. Nursing Supervisor, Department of Nursing, Sultan Qaboos Comprehensive Cancer Care and Research Centre, University Medical City, Muscat, Oman.
4. Nursing Quality Manager, Department of Nursing, Sultan Qaboos Comprehensive Cancer Care and Research Centre, University Medical City, Muscat, Oman.
5. Nursing Head of Department, Department of Nursing, Sultan Qaboos Comprehensive Cancer Care and Research Centre, University Medical City, Muscat, Oman.
6. Head of Nursing, Department of Nursing, Sultan Qaboos Comprehensive Cancer Care and Research Centre, University Medical City, Muscat, Oman.

Correspondence: a.banibakr@cccrc.gov.om

ABSTRACT

BACKGROUND:

The global shortage of nurses presents a serious challenge, making the retention of skilled nursing staff a critical concern for healthcare institutions.

OBJECTIVES:

This study aimed to assess the intent to stay among nurses working at a cancer-specialized centre in Oman, to examine the correlation between nurses' job satisfaction and their intent to stay and to explore the relationship between nurses' personal characteristics and their intent to stay.

METHODS:

A cross-sectional study was conducted from June 2024 to August 2024, involving 131 nurses employed at a specialized cancer centre in Oman. Data were collected using a validated self-administered questionnaire.

RESULTS:

The findings revealed a relatively high mean score for intent to stay ($M = 3.64$, $SD = 1.26$), indicating a strong willingness among nurses to remain at the centre. Pearson correlation analysis showed a statistically significant moderate positive correlation between job satisfaction and intent to stay. Among personal characteristics, only age and nationality were significantly associated with intent to stay.

CONCLUSIONS:

This study provides valuable insights into the factors influencing nurses' intent to stay at a specialized cancer centre in Oman. There is a need for healthcare institutions to focus on improving job satisfaction and implementing targeted strategies to retain skilled nursing staff.

KEYWORDS

Intent to stay, Job satisfaction, Nurse retention, Oncology nursing, Oman

INTRODUCTION

Nursing is a cornerstone of the healthcare system and forms the backbone of patient care across various settings [1]. Nurses fulfil a wide range of roles, extending beyond direct patient care to include mentoring fellow nurses, educating patients, and applying evidence-based research to improve clinical outcomes [2]. They are essential to achieving positive patient outcomes and ensuring the efficiency and effectiveness of healthcare delivery [3]. In addition to enhancing clinical outcome, nurses contribute significantly to the overall economy. Strengthening the nursing workforce is crucial for building a resilient, high-performing, and sustainable healthcare system [4]. Beyond caregiving, nurses influence health policy, lead primary healthcare initiatives, and play critical roles in emergency response and global healthcare continuity [5]. Despite their vital contributions, many healthcare systems grapple with nursing shortages and challenges in retaining experienced staff-issues that directly impact the quality of care, organizational stability, and healthcare expenditure [6]. The global shortage of nurses remains a critical challenge for healthcare systems worldwide. According to the World Health Organization (WHO) an additional 9 million nurses and midwives will be required by 2030 to achieve universal health coverage [7].

In the Sultanate of Oman, nurses constitute the largest segment of the healthcare workforce and serve in a variety of clinical settings. However, the country is also grappling with a growing shortage of nurses, driven by population growth and rising healthcare needs [8]. In addition, the policy of Omanization has led many non-Omani nurses to leave the country, making it hard for the healthcare system to find enough replacements [9]. Currently, there are approximately 20,000 nurses in the country, with 15,217 employed in Ministry of Health institutions with 64% Omanization rate [9].

If the nursing shortage is not effectively addressed across all levels of the healthcare system, it can significantly compromise the quality of patient care [10]. Among the various factors contributing to this shortage, high nurse turnover is one of the most critical, and it is strongly associated with nurses' intent to stay in their current roles [11,12]. Thus, the issue extends beyond a mere deficit of qualified professionals but also involves the retention of nurses within the profession [13]. Evidence indicates that improving nurses' retention is essential for safeguarding patient outcomes and minimizing the substantial costs associated with recruitment and training [14]. A recent study revealed that high turnover rates correlate with poorer patient outcomes, including increased mortality and complication rates [12], alongside elevated organizational expenses for on-boarding new staff [15]. These findings underscore the urgent need for healthcare organizations to prioritize nursing staffing and retention strategies as key components of efforts to enhance care quality and control costs [14,16].

As highlighted above, the retention of skilled nursing staff is a critical concern for healthcare institutions globally, particularly in specialized settings such as oncology care, where the complexity and emotional intensity of patient care are notably high. At cancer specialized centres, nursing turnover poses significant challenges to continuity of care, patient outcomes, and organizational efficiency. Despite the importance of retaining experienced oncology nurses, there is limited empirical evidence in Oman identifying the factors that influence nurses' intent to stay in such demanding work environments. Without a clear understanding of these factors, healthcare administrators face difficulties in developing targeted strategies to improve nurses' retention. This study seeks to address this gap by exploring the key determinants

that influence nurses' intent to remain employed at a cancer specialized centre in Oman, thereby contributing to sustainable workforce planning and enhanced patient care quality.

METHOD

A cross-sectional study was conducted for two months (June-August, 2024) to assess nurses' intent to stay at a cancer-specialized centre in Muscat, the Sultanate of Oman. It also aimed to examine the correlation between nurses' job satisfaction and their intent to stay, as well as to explore the relationship between nurses' personal characteristics and their intent to stay.

SETTING AND SAMPLE

The study was conducted at Sultan Qaboos Comprehensive Cancer Care and Research Centre (SQCCRC), University Medical City, which is a new oncology facility operated from 2021. The centre provided both outpatient and inpatient nursing services. A convenience sampling method was used, selecting participants based on their availability and accessibility to the researcher. The target population included all nurses in inpatient admitting units, which accounts for a total of 170 nurses. Assistant nurses were excluded since they are not involved in full nursing responsibilities. All eligible nurses were invited to participate in the study via their centre email addresses. A total of 131 completed questionnaires were returned, resulting in a response rate of 77.1% from the total number of nurses.

DATA COLLECTION TOOL

This study was employed as part of a bigger study where nurses' satisfaction was assessed as well as their intent to stay. The data collection tools consisted of demographic section, intent to stay, and job satisfaction questions. While several instruments exist to measure nurses' intent to stay, most have been developed in Western contexts. As such, they may not adequately reflect the unique cultural, organizational, and professional dynamics of nursing in Oman. To address this gap, the research team designed a context-specific tool in collaboration with senior nursing team members. This approach ensured that the instrument was grounded in both current literature and the lived realities of nursing practice within the country and the centre, enhancing its relevance and applicability.

The tool measures how likely nurses are to leave their job at the centre or the nursing profession altogether. Nurses responded using a 5-point Likert scale, ranging from "strongly agree" to "strongly disagree", with higher scores directly indicating a stronger intent to remain in the centre and within the nursing profession. Using a 5-point Likert scale allowed for a simple, reliable, and widely accepted method of quantifying attitudes,

Additionally, modified version of the Mueller and McCloskey Satisfaction Scale (MMSS) was used to evaluate nurses' satisfaction; evaluated multiple dimensions of job satisfaction, including salary, autonomy, collegial relationships, and professional development opportunities. The MMSS scale was adapted to better reflect the working environment of the centre and had previously been validated in the Omani context [17]. All the study data collection tools were reviewed by experts at the centre, such as nurse managers; for their expert evaluation of their content validity, including the relevance of the items, the appropriateness of the language used, and any recommendations for additions, modifications, or deletions. Based on the feedback and consensus from the reviewers, revisions were made to ensure the tools' accuracy. Notably, the agreement rate among reviewers concerning the tools' validity, clarity, and item relevance was 90%, demonstrating a high level of consensus. In the current study, only minor modifications were made to the MMSS to improve the clarity and simplicity of the language. These adjustments were undertaken to ensure that the items were easily understood by nurses and that the wording was culturally appropriate for the Omani and centre context. No changes were made to the original content or structure of the scale; the modifications focused solely on simplifying the language by utilising the centre approved terminologies. This is to improve understanding and facilitate accurate responses.

The study tools were piloted with 10 nurses, to evaluate the clarity of the content ability to measure the variables. The results revealed a high internal consistency (a Cronbach's alpha of 0.91 for intent to stay scale, and 0.88 for nurse's job satisfaction scale).

The study was approved by the institutional review board. The online link was sent to eligible nurses using the centre official email. The first page of the link details the study objectives, the voluntary right to participate and the anonymity of participation.

RESULTS

Statistical analysis was performed using SPSS software (Version 20, IBM Corp., Armonk, NY, USA). Descriptive statistics were used to summarize the demographic and clinical characteristics of the participants, while inferential statistics were applied to examine the relationships between variables. A significance level of ($p < .05$) was used for all statistical tests. Normality of the study variables was assessed using skewness and kurtosis statistics. The results indicated that the values for skewness and kurtosis for all variables were within the acceptable range (± 1.96), suggesting data were approximately normally distributed. Therefore, the assumption of normality was met. Additionally, homogeneity of variance was assessed using Levene's test, the assumption was met ($p = 0.08$), indicating that the variances were equal across groups confirming the suitability of parametric statistical tests for further analysis.

The demographic variables examined included age, gender, marital status, nationality, education level, work unit, hospital financial grade, job position, and working hours. Of the 131 participants, 71.8% were female ($N = 94$) and 28.2% were male ($N = 37$). The largest age group was 31-35 years, comprising 30.5% ($N = 40$), while the smallest group was those over 40 years, making up 9.9% ($N = 13$). A significant proportion of participants were married (69.5%, $N = 91$). Most held a bachelor's degree (77.9%, $N = 102$), and non-Omani nurses represented the highest proportion (64.9%, $N = 85$). A notable percentage of nurses worked in inpatient units (44.3%, $N = 58$). Many nurses held staff nurse positions (71.8%, $N = 94$), and most worked on day/night shifts (74%, $N = 97$). The results are summarized in Table 1 below.

TABLE (1) NURSES' DEMOGRAPHIC CHARACTERISTICS(N=131)

Category	N	%
Age		
20-25	18	13.4
26-30	30	22.9
31-35	40	30.5
36-40	30	22.9
>40	13	9.9
Gender		
Male	37	28.2
Female	94	71.8
Marital status		
Single	39	29.7
Married	91	69.5
Divorced and widowed	1	0.8
Nationality		
Omani	46	35.1
Non- Omani	85	64.9
Education		
BSc.	102	77.9
Post graduate certificate (PhD, Master, post-graduate diploma).	24	18.3

Diploma in nursing	4	3.1
Other	1	0.8
Department		
Inpatient Units	58	44.3
ICU/HDU	40	30.5
Theatre/Endoscopy	10	7.6
Day Care Unit (DCU)	9	6.9
Outpatient Units	7	5.3
Administration	7	5.3
Position possesses		
Staff Nurse	94	71.8
Team Leader/ Shift in-charge/Clinical Resource Nurse	23	17.6
Advanced nurse practice/Clinical Nurse Specialists	5	3.8
HOD/ Head Nurses/ Nurse Supervisor	9	6.9
Working hours		
Early and late shifts.	97	74.0
Day and mid-shift/afternoon.	15	11.5
Official working hours.	19	14.5

INTENT TO STAY AND ITS RELATIONSHIP WITH JOB SATISFACTION

Descriptive statistics were employed to assess the intent to stay and nurses' job satisfaction. The results indicated a high mean score for intent to stay ($M = 3.64$, $SD = 1.26$), suggesting a strong intention to remain at the centre. Similarly, the participants reported a high level of nurses' job satisfaction, with an overall mean score of ($M = 3.96$, $SD = .745$). To examine the correlation between intent to stay and nurses' job satisfaction, the data were assessed for normality. A Pearson correlation analysis was conducted, revealing a statistically significant moderate positive correlation between intent to stay and nurses' job satisfaction ($r = .572$, $p < .05$). This suggests that higher levels of job satisfaction are associated with a stronger intention to stay in the nursing profession.

FACTORS RELATED TO INTENT TO STAY

Inferential statistics were used to investigate the relationship between nurses' personal characteristics and intent to stay. one-way ANOVA was used to investigate the difference in the mean scores of intentions to stay among and others independent variable such as nurses' age, marital status, education level, unit of working, financial grade, position possess and working hours. Table 2 presents the results of the one-way ANOVA used to examine the relationship between nurses' personal and professional characteristic's and their intent to stay. A statistically significant difference was found in the mean intent to stay scores across different age groups ($F(4, 126) = 2.756$, $p = .031$), indicating that age plays a role in nurses' decisions to remain in their current roles. Specifically, nurses aged 31–35 years showed a higher tendency to stay compared to other age groups. No significant differences were found based on marital status, education level, unit of work, financial grade, position held, or work shift ($p > .05$), suggesting that these variables did not significantly influence intent to stay among the nurses in this study.

TABLE 2: ONE-WAY ANOVA RESULTS – INTENT TO STAY BY NURSES' PERSONAL CHARACTERISTICS

Variable	df (Between, Within)	F-value	p-value
Age Group	(4, 126)	2.756	.031
Marital Status	(2, 128)	1.011	.367
Education Level	(2, 128)	1.30	.35
Unit of Work	(5, 125)	1.658	.150
Financial Grade	(3, 127)	1.953	.124
Position Held	(3, 127)	.255	.85
Work Shift	(2, 128)	.60	.54

Table 3 shows the distribution of nurses' intent to stay across age groups. The highest proportion was observed among nurses aged 31–35 years (30.5%), followed by those aged 26–30 years and 36–40 years (22.9% each). The lowest proportions were seen in nurses aged 20–25 years (13.4%) and those aged above 40 years (9.9%). Post hoc analysis confirmed that intent to stay was significantly higher in the 31–35 age group compared to the younger (20–30) and older (>40) groups.

TABLE 3: TUKEY POST HOC TEST FOR AGE GROUP DIFFERENCES IN INTENT TO STAY

Age Groups Compared	Mean Difference	Std. Error	p-value
20–25 vs 26–30	-0.25	0.18	.612
20–25 vs 31–35	-0.70*	0.21	.012
20–25 vs 36–40	-0.45	0.20	.083
20–25 vs >40	-0.30	0.23	.215
26–30 vs 31–35	-0.45*	0.18	.031
26–30 vs 36–40	-0.20	0.19	.421
26–30 vs >40	-0.05	0.22	.845
31–35 vs 36–40	0.25	0.17	.287
31–35 vs >40	0.40*	0.19	.042
36–40 vs >40	0.15	0.21	.522

An independent *t*-test was conducted to examine the differences in mean scores of intentions to stay among nurses based on variables nurses' gender and nationality. Table 4 presents the comparison of intent to stay scores based on gender and nationality. The results indicate that there was no statistically significant difference in intent to stay between male ($M = 4.12$, $SD = 0.57$) and female nurses ($M = 3.53$, $SD = 1.29$), with a *p*-value of .6 ($p > .05$). However, a statistically significant difference was found based on nationality ($p = .01$). Specifically, non-Omani nurses reported a higher mean score for intent to stay ($M = 3.94$, $SD = 1.19$) compared to Omani nurses ($M = 3.09$, $SD = 1.20$), suggesting that non-Omani nurses may have a stronger intention to remain in their positions. It is important to highlight that the number of non-Omani nurses participated in the study is higher than their Omani counterpart.

TABLE 4: INDEPENDENT T-TEST RESULT BETWEEN INTENT TO STAY AND NURSES' GENDER AND NATIONALITY

Variable	Number	Mean Score	SD	Significant
Gender				
Male	37	4.1160	.56725	.6
Female	94	3.5319	1.29268	
Nationality				
Omani	46	3.09	1.20	.01
Non-Omani	85	3.94	1.19	

DISCUSSION

This study found that nurses at the cancer specialized centre had a high intent to stay ($M = 3.64$, $SD = 1.26$). Job satisfaction was significantly and positively correlated with intent to stay, and age and nationality were the only personal characteristics significantly associated with it. These findings are consistent with findings from a similar study conducted across five major publicly funded teaching hospitals in Oman, where nurses reported a moderate level of intent to stay ($M = 3.13$, $SD = .80$). It has been reported that increasing nurses' involvement in health policy was a significant positive predictor of their intent to stay [18]. Additionally, the findings align with another study conducted in an Omani government hospital, where nurses reported a moderate intent to stay. Factors such as high-reliability organizations and psychological safety were found to significantly affect nurses' intent to stay [19].

A study conducted in Saudi Arabia found that 75% of nurses expressed a desire to leave their current jobs. The decline in happiness levels was identified as a primary cause for high intent to leave [20]. Similarly, a study in the UAE found that the

desire to remain in the nursing profession was low, with organizational commitment being a key factor influencing nurses' intention to leave [21].

The results of this study revealed a strong correlation between nurses' job satisfaction and their intent to stay, which is consistent with findings from other studies [22, 23]. Unsupportive work environment is associated with low job satisfaction, therefore has been identified as a significant factor contributing to nurses leaving their current jobs and the profession altogether [16, 24]. This aligns with other research studies suggesting that job satisfaction and a supportive work environment as critical predictors of nurses' intent to remain in the profession. Therefore, both job satisfaction and organizational support suggested to play a vital role in influencing nurse retention [17, 25].

Moreover, the analysis of various personal characteristics of nurses revealed that age is a significant factor influencing intent to stay. The highest intent to remain was observed among nurses aged 31-35 years, while the lowest was seen in the above 40 years age group and 20-25 age group. This finding is consistent with other research [26], which indicated that younger nurses are more likely to leave their jobs due to career exploration and unsatisfactory job conditions. This could be attributed to the challenges faced by less experienced nurses, especially as they navigate the demanding work environments at the beginning of their careers.

Gender did not appear to have a statistically significant impact on nurses' intention to stay, which aligns with findings of other studies. Gender was not found to influence turnover intention [27]. This suggests that retention is guided by universal factors rather than gender-specific interventions. Similarly, marital status was not found to significantly affect the desire to stay. This has also been reported by another study [28], where marital status was not found to adversely impact nurses' job satisfaction and retention. On the other hand, a systematic review revealed that marital status and work-life balance influence turnover intentions [25]. Furthermore, the results of this study showed that education level is not a significant predictor of nurses' intent to stay. This is consistent with the findings of other research studies [25]. It has been reported that there is no significant association between education level and nurses' intent to stay. However, it has been reported that advanced education may lead to higher job mobility, potentially affecting retention indirectly [25].

Notably, it is found that there is a significant difference in intent to stay across nationalities, with non-Omani nurses indicating a stronger intent to remain in their positions compared to Omani nurses. This finding is supported by other studies [16], who noted that expatriate nurses often prioritize job stability due to contractual obligations and financial incentives. Additionally, another study [29] suggested that expatriate nurses experience increased job satisfaction, partly due to enhanced financial incentives and job security. In contrast, Omani nurse's dissatisfaction might not be related to the job but to the profession and its demands [30]. For this specific cancer centre, many of the Omani nurses are not local to Muscat, where the centre is located. Therefore, for many of them, moving to work close to home might be preferred. It has been reported in multiple studies that Omani nurses' decision to leave their jobs, is influenced by balancing between work demands and personal life. A study found that Omani nurses who are working outside their hometown and work shift duties tend to fail to balance between the demanding shift schedules and participating in important family and community events, which increased their work-related stress [8]. Another study conducted to explore nurses absenteeism found "work-life balance" as the major contributing factor to nurses' turnover [9]. Therefore, the centre management must pay considerable attention to instilling strategies for work-life balance considering the country initiatives of Omanization.

A key strength of this study that it focuses on nurses working in a cancer specialized centre in Oman (SQCCRC), which serves as a primary referral facility for cancer patients in the country. Despite the being a single centre study and small sample size, compared to other studies done in Oman, this study found a slightly higher level of intent to stay. This might be attributed to the centre been a new facility with many new staff and high number of training and professional development opportunities.

The findings of this study have significant implications for healthcare managers and policy makers, particularly in similar settings. Understanding the factors influencing nurses' intent to stay-such as job satisfaction and personal characteristics-

can inform targeted retention strategies. Enhancing job satisfaction through supportive work environments, recognition, and professional development opportunities may help reduce turnover rates. These insights can aid decision-makers in developing policies that prioritize workforce stability, ultimately improving the quality of patient care and operational efficiency. It is important to highlight that the health care decision makers in Oman must pay a special attention to “the job satisfaction” and “intent to stay” of Omani nurses. This is vital to be able to stabilise the provision of health care that is heavily depends on expatriate nursing workforce. This must include creating a supportive work environment that balances professional growth, recognition, and well-being. This can be achieved by offering competitive salaries and benefits, ensuring manageable workloads, providing opportunities for career advancement and continuous training, and fostering a positive organizational culture where nurses feel valued and heard. Supportive leadership, flexible scheduling, mentorship programs, and initiatives that promote work-life balance and mental health can further strengthen job satisfaction and loyalty, ultimately encouraging Omani nurses to remain committed to their roles.

CONCLUSION

The findings of this study contribute significantly to the existing body of knowledge regarding nurses in Oman, particularly in terms of their intent to stay. By examining work-related conditions within specialised health care facilities, the results provide valuable insights into the factors influencing the levels of “intent to stay” among nurses. These findings underscore the importance for healthcare administrators to assess and understand the determinants of intent to stay among nursing staff, as well as to identify strategies that enhance both satisfaction and work performance. Additionally, the outcomes of this study offer important guidance for strengthening retention strategies, improving recruitment practices, and advancing organizational responsibility within the nursing profession in Oman.

LIMITATIONS AND FUTURE RESEARCH

While this study provides valuable insights, several areas remain unexplored. For instance, qualitative investigations could further illuminate the underlying motivations behind nurses' decisions to stay or leave. Future research could also examine organizational culture, leadership styles, and workload as potential factors influencing retention. Longitudinal studies may help establish causal relationships and assess the long-term effectiveness of retention interventions in oncology and other high-stress clinical environments.

On the other hand, the findings may have limited generalizability due to the single-centre design and small sample size. Additionally, the findings should be interpreted with caution due to its cross-sectional design, which limits the ability to establish causal relationships between variables. The use of a convenience sampling method may also introduce selection bias and reduce the generalizability of the results to the broader population of nurses.

References

1. Sari NK, Prihatiningsih TS, Lusmilasari L. Key elements of professional nursing practice: a scoping review. *OAMJMS*. 2021;9(4):253–260. doi:10.3889/oamjms.2021.5885
2. Cao H, Song Y, Wu Y, Du Y, He X, Chen Y, et al. What is nursing professionalism? A concept analysis. *BMC Nurs*. 2023;22(1):34. doi:10.1186/s12912-022-01161-0
3. Karam M, Chouinard MC, Poitras ME, Couturier Y, Vedel I, Grgurevic N, Hudon C. Nursing care coordination for patients with complex needs in primary healthcare: a scoping review. *International Journal of Integrated Care*. 2021;21(1). doi:10.5334/ijic.5518
4. Yakusheva O, Lee KA, Weiss M. The nursing human capital value model. *International Journal of Nursing Studies*. 2024;160. doi:10.1016/J.IJNURSTU.2024.104890
5. Rai A, Khatri R, Assefa Y. Primary health care systems and their contribution to universal health coverage and improved health status in seven countries: an explanatory mixed-methods review. *International Journal of Environmental Research and Public Health*. 2024;21(12):1601. doi:10.3390/IJERPH21121601/S1
6. Buerhaus PI. Current nursing shortages could have long-lasting consequences: time to change our present course. *Nurs Econ*. 2021;39(5):247–250.

7. WHO. Nursing and midwifery. World Health Organization. 2024 [cited 2025 May 10]. Available from: <https://www.who.int/news-room/fact-sheets/detail/nursing-and-midwifery>
8. Al-Yaqoubi S, Arulappan J. Sources of work-related stress among Omani nurses: a cross-sectional study. *J Patient Exp.* 2023;10(1). doi:10.1177/23743735231166504.
9. Al Menji H, Al Zadjali A, Al Lamki M, Al Shamsi Z, Al Kiyumi L, Al Harrasi K, et al. Health system and absenteeism among nurses in Oman: root cause analysis. *Journal of the Oman Medical Association.* 2024;1(1):48–60.
10. Ghafoor Y, Yaqoob MA, Bilal MA, Ghafoor MS. Impact of nurse shortage on patient care. *Saudi Journal of Nursing and Health Care.* 2021;4(4):114–119. doi:10.36348/SJNHC.2021.V04I04.003
11. Wu F, Lao Y, Feng Y, Zhu J, Zhang Y, Li L. Worldwide prevalence and associated factors of nursing staff turnover: a systematic review and meta-analysis. *Nursing Open.* 2024;11(1). doi:10.1002/NOP2.2097
12. Rodríguez-García, M. C., Ramos-Martínez, Á., & Cruz-Cobo, C. (2024). The Influence of Job Crafting on Nurses' Intent to Stay: A Cross-Sectional Study. *Nurs Rep*, 14(4), 3436–3444. <https://doi.org/10.3390/NURSREP14040249>.
13. Tamata AT, Mohammadnezhad M. A systematic review study on the factors affecting shortage of nursing workforce in the hospitals. *Nursing Open.* 2022;10(3):1247. doi:10.1002/NOP2.1434.
14. Pressley C, Garside J. Safeguarding the retention of nurses: a systematic review on determinants of nurses' intentions to stay. *Nursing Open.* 2023;10(5):2842–2858. doi:10.1002/nop2.1588.
15. Randa MB, Phale JM. The effects of high nurses' turnover on patient care: perspectives of unit managers in critical care units. *IJANS.* 2023;19. doi:10.1016/j.ijans.2023.100580
16. Al-Suraihi W, Siti A, Al-Suraihi A, Ibrahim I, Samikon S, Al-Suraihi AH. Employee turnover: causes, importance and retention strategies. *European Journal of Business and Management Research.* 2021;6(3):10. doi:10.24018/ejbmr.2021.6.3.893
17. Al Maqbali MA. Job satisfaction of nurses in a regional hospital in Oman: a cross-sectional survey. *Journal of Nursing Research.* 2015;23(3):206–216. doi:10.1097/jnr.000000000000008
18. Al Yahyaei A, Al Kindi Z, Al Sabei S, Al Jabri W. Predictors of nurses' intention to stay: examining the impact of healthcare policy involvement. *Asian Nurs Res.* 2025;19(1). doi:10.1016/j.anr.2024.12.004
19. Darwish S, Ali W. Perception of nurses toward working at high reliability healthcare organizations: the association to nurses' psychological safety and intention to stay. *Sultan Qaboos University Journal for Science.* 2024;29(2):56–68.
20. Alotheimin HK, Salem O. The impact of Saudi nurses' happiness on their turnover intentions. *Open Journal of Nursing.* 2023;13(11):800–810. doi:10.4236/OJN.2023.1311053
21. Alhorani AO, Alkhrishi MY, Ndhlovu WM, Chetty R, Hamud ZZ. The effect of organizational commitment on intention to leave among nurses: a quantitative study of Abu Dhabi Health Services Company (SEHA). *Asia Pacific Journal of Health Management.* 2024;19(3):3475. doi:10.24083/APJHM.V19I3.3475.
22. Salahat MF, Al-Hamdan ZM. Quality of nursing work life, job satisfaction, and intent to leave among Jordanian nurses: a descriptive study. *Heliyon.* 2022;8(7). doi:10.1016/J.HELIYON.2022.E09838
23. Banibakr A, Shafie Z, Mohammad A, Alkuwaisi M. Factors influencing nurses job satisfaction in Jordanian public hospital. *International Journal of Advanced and Applied Sciences.* 2018;6(1):81.
24. Albashayreh A, Al Sabei SD, Al-Rawajfah OM, Al-Awaisi H. Healthy work environments are critical for nurse job satisfaction: implications for Oman. *Int Nurs Rev.* 2019. doi:10.1111/inr.12529.
25. Woodward KF, Willgerodt M. A systematic review of registered nurse turnover and retention in the United States. *Nursing Outlook.* 2022;70(4):664–678. doi:10.1016/j.outlook.2022.04.005
26. Marufu, T. C., Collins, A., Vargas, L., Gillespie, L., & Almghairbi, D. (2021). Factors influencing retention among hospital nurses: systematic review. *British journal of nursing*, 30(5), 302-308. <https://doi.org/10.12968/bjon.2021.30.5.302>
27. Hu H, Wang C, Lan Y, Wu X. Nurses' turnover intention, hope and career identity: the mediating role of job satisfaction. *BMC Nursing.* 2022;21(1):43. doi:10.1186/s12912-022-00821-5.
28. Matsuo M, Suzuki E, Takayama Y, Shibata S, Sato K. Influence of striving for work-life balance and sense of coherence on intention to leave among nurses: a 6-month prospective survey. *Inquiry.* 2021;58. doi:10.1177/00469580211005192
29. Duru DC, Hammoud MS. Identifying effective retention strategies for front-line nurses. *Nursing Management.* 2022;29(1). doi:10.7748/nm.2021.e1971
30. Al Yahyaei A, Hewison A, Efstathiou N, Carrick-Sen D. Nurses' intention to stay in the work environment in acute healthcare: a systematic review. *Journal of Research in Nursing.* 2022;27(4):374–397. doi:10.1177/17449871221080731