# **ORIGINAL RESEARCH**

# The effectiveness of intervention strategies to improve nurse retention

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#### ABSTRACT

**Background and aim:** Nurse retention is a persistent issue in the global health sector. Nurses are essential to the strength and resilience of healthcare systems, but current supply, demand, and the needs of the population lead to threats that undermine universal healthcare goals. Consideration of strategies to improve nurse turnout in hospitals has become crucial to national and global healthcare systems. The aim of the study was to identify the effectiveness of intervention strategies implemented to improve nurse retention in 2020 at King Abdullah Medical Complex in Jeddah (KAMCJ).

**Methods:** The present study reviewed the intervention strategies that were carried out in 2020 at KAMCJ in order to improve nurse retention, 511 nurses were included in the improvement project and underwent yearly satisfaction surveys and exit interviews in 2020. The information from the available documents was gathered retrospectively.

**Results:** The current study's findings indicated that the nurse satisfaction and exit interview results were positive in terms of the nurse's working environment, professional development, and promotion opportunities. According to the outcomes, the turnover rate decreased from 19.70% in 2019 to 8.90% in 2020, while the retention rate increased from 80.30% in 2019 to 91.10% in 2022. **Conclusions:** This study highlighted the importance of developing a multi-dimensional strategy to address issues related to nursing job satisfaction, such as professional growth and development and nurses' working conditions, which significantly increase nursing retention.

Key Words: Nursing, Retention, Intervention, Strategies

#### **1. INTRODUCTION**

Nurse retention is a persistent issue in the global health sector. Nurses are essential to the strength and resilience of healthcare systems, but current supply, demand, and the needs of the population lead to threats that undermine universal healthcare goals. Consideration of strategies to address the nursing workforce shortage has become central to both national and international health policy.<sup>[1,2]</sup> Furthermore, nurse turnover results in insufficient staffing, which increases workloads and stresses other staff.<sup>[3–5]</sup> Consequently, nurses' attitudes toward their jobs may change drastically, causing low job satisfaction and then shifting to another organization. Inadequate nurse staffing also leads to poor patient outcomes, such as increased patient mortality and infection rates.<sup>[6,7]</sup> However, reliable information on the quality of nursing work and the intentions of nurses to leave the profession is scarce in Saudi Arabia. Studies have found a significant increase in nurse organizational turnover, accompanied by a decrease in nursing resources.<sup>[8,9]</sup> Nurses in Saudi Arabia come from a variety of countries, some of which may be incompatible with

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Saudi culture. According to a previous study, non-Arabicspeaking nurses are underutilized as public-sector caregivers due to language barriers and cultural differences.<sup>[10]</sup> Such challenges for nurses, in addition to other causes related to the organization, generate a high level of stress, which has a negative impact on the quality of their working life. Another study revealed that after gaining sufficient experience, the majority of foreign nurses relocate to developed countries.<sup>[11,12]</sup> Simultaneously, a nursing shortage of nearly six million nurses worldwide, puts nurses under significant strain.<sup>[13,14]</sup> Although definitions differ, turnover intention can be defined as an employee's desire to leave their current job within a certain period.<sup>[15]</sup> Moreover, turnover intention is defined as a multi-stage process that begins with psychological reactions to negative aspects of one's current job and can lead to the decision to quit.<sup>[16]</sup> Although nurses leaving their profession may be considered the most serious issue. turnover within the profession can also result in significant costs to the healthcare system such as decreased productivity and training costs for new hires.<sup>[17]</sup> Nursing is considered one of the most demanding and stressful professions, where nurses face challenging situations such as workload, staff shortages, death, and grief. All of these factors can lead nurses to quit their jobs, which results in a high turnover rate. According to Colosi<sup>[18]</sup> the annual turnover rate for staff nurses in the United States increased to 8.4, in addition, the turnover rate in emergency departments is considered one of the most affected areas, where the turnover rate has increased to 111.4% cumulatively over the past five years where the entire nursing staff will turn over. WHO<sup>[19]</sup> declared the coronavirus disease 2019 (COVID-19) a global pandemic in March 2020. Nurses, who account for 59% of the global health workforce, are critical to maintaining patient care during this ongoing crisis.<sup>[19]</sup> This pandemic has increased the turnover rate for several reasons, including the large number of deaths as a result of infections, staff shortages, the fear of getting infected from working with a contagious, unknown disease, and high demands. Labrague and Santos<sup>[20]</sup> stated that, among nurses, the fear of being infected with COVID-19 influences their desire to leave the profession. Many studies have been done to find out why nurses leave their jobs and how to increase nursing retention. Regarding the effectiveness of intervention strategies in influencing nurses' intentions to leave, there isn't a lot of trustworthy information available in Saudi Arabia. A high turnover rate of 19.70% occurred at King Abdullah Medical Complex in 2019, and the percentage of nurses who were still working there at the end of the year was 80.30%.<sup>[21]</sup> Therefore, the aim of this study is to evaluate the effectiveness of nursing intervention strategies implemented in 2020 at the

King Abdullah Medical Complex in Jeddah (KAMCJ) to reduce nursing turnover and improve nursing retention. The objective of this study is to encourage the use of evidencebased approaches for promoting nursing retention.

# 2. METHODS

# 2.1 Study setting

This study was conducted at KAMCJ, which provides highly specialized medical care to patients and their families through evidence-based medicine with an emphasis on health research, continuous training, and community participation. Bed capacity: 424; the number of staff nurses: 934, The study was carried out between July 1st and December 30th, 2022.

# 2.2 Study subjects and size

The sample size was 419 nurses who participated in the nursing satisfaction annual survey and 92 nurses who participated in exit interviews in 2020 at King Abdullah Medical Complex.

#### 2.3 Inclusion criteria

All nurses who participated in exit interviews and the questionnaire to assess their satisfaction at King Abdullah Medical Complex in 2020. In addition to the criteria listed below:

- Nursing specialty: degree of qualification not specified.

- Gender: male and female.

- Nationality: different nationalities (Saudi, Filipino, Indian, Jordanian).

Assigned areas: different clinical settings (medical, surgical, critical care, ambulatory, maternity, and neonatal care units).
Respective roles and positions: nursing administration, nursing manager, head nurse, charge nurse, staff nurse, health care assistant.

- The span of service at King Abdullah Medical Complex: less than 1 year up to more than 5 years.

# 2.4 Exclusion criteria

All nurses who did not take part in exit interviews or fill out a questionnaire to rate their satisfaction at King Abdullah Medical Complex in 2020. In addition to the following criteria:

- Other than a nursing specialty.

- Primary health care nurses.

- Nursing specialty working in pediatric departments.

- Nursing staff working out of the nursing services field.

# 2.5 Study design

Hess<sup>[22]</sup> defined a retrospective study as a study that uses existing data that has been recorded for reasons other than

research. The researcher selected this approach in this study because of its feasibility, as the data already existed.

#### 2.6 Study tool

Because the data was already available, the authors created an Excel sheet to collect data about initiatives and interventions conducted on nurse retention, as well as demographic data, the results of exit interviews, and the annual nursing satisfaction survey. The authors found two instruments for data collection used by the nursing administration to measure and assess nursing satisfaction in 2020. The first one was the nursing satisfaction annual survey, which was developed by the nursing administration. This survey included nineteen questions: twelve about workplace satisfaction using a Likert scale (strongly disagree, disagree, neither agree nor disagree, agree, strongly agree), three about development and promotion opportunities using a satisfaction scale (very satisfied, satisfied, neutral, dissatisfied, very dissatisfied), and four about housing, foods, and transportation facilitation using the scale (excellent, very good, good, fair, poor). The nursing satisfaction survey was sent electronically to all targeted nurses via the employee's official e-mail address. While the second instrument was the exit interview question, which is conducted with employees who are leaving the hospital, interviews were conducted as part of the nursing administration requirement to learn about why staff nurses are leaving and what their opinions related to their work. According to the policy used during 2020, the exit interviews were organized at the end of the nurse's time in the hospital. The nurse gives two weeks' notice, and exit interviews are scheduled around four to five days before they leave, Human resources staff in nursing administration conducted one-on-one meetings, and during the meeting, human resources staff explained to the nurse why the interview was conducted and how the information will be used and will keep it confidential. The exit interviews include a multiple choice question that allows respondents to choose the right answer among seven options to specify the factors that led to nurse turnover, which include: competitive salary, career opportunity or improvement, better offer and benefits, family or personal reasons, conflict with the manager, conflict with employees, and moving closer to home or settling in the country of origin. In accordance with hospital protocol, the following equation was used to determine the nurses' turnover and retention rates:

 $TurnoverRate = \frac{Thenumberofnursesleftinayear(January2020-December2020)}{The total numberofnurses at the beginning of the year(January2020)} \times 100$ 

#### 2.7 Ethical considerations

The study has been approved by the Research Ethics Committee at the Directorate of Health Affairs, Jeddah region. Also, the researcher made sure that the research process, preparation, publication, and sharing of results all followed ethical standards established by Research Ethics Committee. Furthermore, the data set is stored in a secured cabinet and no person will be allowed to access them rather than the research team.

#### 2.8 Interventions strategies to improve nurse retention

The researchers reviewed documents of improvement projects related to nursing retention from 2015 to 2022 in retrospect. The researchers found that in 2019, there was a high turnover rate of 19.70%, and the retention rate of nurses in the KAMCJ at the end of the year was 80.30% which is the highest proportion of all previous years. For this reason, the researchers chose 2020 to find out what measures were taken by the nursing administration at KAMCJ regarding this issue. The researchers collected all the interventions carried out by the KAMCJ team in 2020 to improve nursing retention. As a starting point, the KAMCJ team focused on the nursing needs identified in the annual satisfaction surveys and the exit interviews conducted in 2019 and included these needs in their improvement project during 2020, following up on improvement project outcomes through exit interviews and satisfaction surveys. The following intervention strategies were included in the improvement project. The first strategy was to use work schedules to set up and keep up a staffing system that would help nurses manage their workload and stick to the required nurse-to-patient ratio based on bed capacity, updated patient acuity of the unit, and the executive committee's plan for growth. Manage flexible work schedules such as time-off requests, childcare leave, study leave, or on-the-job study. The second strategy was housing, food, and spiritual requirements. Availability of housing allowances for married couples Food Menu: Update the Filipino and Indian menus and provide an open day for different types of foods. Unsatisfied housing environment: proving a yearly medical checkup, monthly monitoring, solving the emerging issues after inspection, providing appliances, such as eight washing machines, and providing prayer rooms. The third strategy was to meet education and qualification requirements and create programs that give staff members options based on their specialties, qualifications, and experience. For example, promotions programs, Saudi Career Development Programs for Saudi Staff Nurses, in which ten staff members were moved to different positions, and job openings for non-Saudi Staff Nurses, in which nine staff members were hired, were created. Mentorship programs target staff to be promoted to charge nurse and head nurse positions. The preceptor-

 $RetentionRate = \frac{Then umber of nurses who still working innursing for 12 months}{The total number of nurses you had at the beginning of the year X100 months and the state of the state$ 

ship program was developed and applied to target senior staff under specific criteria. Thirty-five staff members successfully completed this program. Development programs and motivation activities cross-training program: targeting nursing staff working in regular wards (inpatient surgical, medical, and maternity wards) to provide new experience and gain advanced skills; thirty-seven nurses successfully passed this program. Twenty-four staff members successfully completed the gaining experience program for managers, supervisors, head nurses, educators, and quality coordinators. The unavailability of basic life support (BLS) and advanced cardiovascular life support (ACLS) and other advanced life support training courses such as pediatric advanced life support (PALS) and neonatal resuscitation program (NRP) led to arranging the dates of the BLS, ACLS, PALS, and NRP courses, As a result, a number of nurses were trained in these courses, as follows: 122 BLS, 69 ACLS, 1 PALS, and 31 NRP, with facilitation of transportation and education, leave. Furthermore, ACLS payments are refundable. In addition, motivational activities were conducted, which included the quarterly selection of the unit's best nurse in the grand round to motivate nurses and give recognition and rewards for the loyal staff with five years of service. Furthermore, monthly unit selection for the best nurses in monthly departmental meetings and the celebration end of the year.

#### **3. RESULTS**

# 3.1 Participants in the annual satisfaction survey distributed by demographic data

The demographic characteristics of participants are presented in Table 1, a total of 419 nurses in 2020 participated in the annual satisfaction survey. The majority of nurses working in the hospital were found to be Saudi (42.5%), Filipino (34.8%), and Indian (22.7%). The nursing population was predominantly female (95.2%). Most of the participants (75%) were staff nurses, and their clinical experience in the KAMCJ for 1-2 years was 42.7%.

The demographic characteristics of participants are presented in Table 2. A total of 92 nurses in 2020 participated in the exit interviews. The majority of nurses (44.6%) who intended to leave their job were Filipino nurses, followed by Indian nurses (42.4%). The nurses who intended to leave the hospital were predominantly female (96.7%). Most of the participants (97.8%) were staff nurses, and the majority of them (40.2%) served in the KAMCJ for 1–2 years.

# 3.2 Nursing satisfaction based on satisfaction annual survey and exit interview results

Based on the results of the annual nursing satisfaction survey, Table 3 shows the nursing satisfaction score as a whole. Re-

garding the nurses working environment satisfaction, in the work engagement section, the nurse's response is positively related to most of the statements and negative towards others. Regarding statement number 4, the majority of nursing staff (79%) agreed and strongly agreed that "I understand how my work impacts the nursing organization's mission, vision, and goals". There was a positive response in nursing satisfaction related to statements numbers (5,7,8,9&11). More than half of the nursing staff agreed and strongly agreed that there is effective communication between nurses and a multidisciplinary team in the hospital, including senior leaders, laboratory staff, medical supply personnel, infection control staff, and the medical team physician, while there is a negative response regarding statements numbers (6, 10), effective communication between nurses and pharmacy, and staff HR personnel. When the participants presented their satisfaction regarding statement number (2), most of them (69%) agreed and strongly agreed that "I feel completely involved in my work in terms of decision-making and problem-solving processes." Furthermore, when participants showed their attitudes regarding statement number (3), most of them (62%) strongly agreed and agreed that the staff in the nursing department take the initiative to help other employees when the need arises. Statement number 1 shows that the majority of participants (56%) agreed and strongly agreed that "I get excited and inspired about going to work every day to meet my goals". On the other hand, statement number (12) indicated that nearly all nurses guaranteed nursing management recognized high job performance and addressed concerns and suggestions. Table 3, the overall responses regarding the nurses' development and promotion opportunities engagement section, demonstrated a positive attitude toward opportunities for professional growth through training and education and their working department's satisfaction. However, many respondents are dissatisfied with their compensation and benefits, negatively impacting staff turnover. The scores for the housing facilities and amenities were disappointing. Table 3 shows that the nursing staff was the least satisfied with the food services in the cafeteria, the transportation services, and the housing facilities provided by the KAMCJ. There is an important note to make: statements (16, 17, and 18) do not apply to all nurses (N/A). In this study, the researchers noted that there were a significant number of nurses who selected neutral responses in the satisfaction survey results, this may potentially have many possibilities, including the nurses being very undecided on how to answer. It could also mean that the questions in the questionnaire were not clear, or nurses may be hesitant to provide honest answers due to fear.

(n = 419)		
	Frequency	Percentage (%)
Nationality:		
Filipino	146	34.8
Indian	95	22.7
Saudi	178	42.5
Gender:		
Male	20	4.8
Female	399	95.2
Job Title:		
Charge Nurse	39	9.3
Head Nurse	9	2
HCA	7	1.7
Midwife	15	3.6
Nursing Educator	18	4.3
Nursing Administration	6	1.4
Nursing Quality	4	1
Nursing Supervisor	7	1.7
Staff Nurse	314	75
Years of Experiences:		
Less than 1 year	48	11.5
1-2 years	179	42.7
3-4 years	88	21
More than 5 years	104	24.8

**Table 1.** Participants in the annual satisfaction survey

 distributed by demographic data

**Table 2.** Nurses' participants in exit interviews distributed

 by demographic data

(n = 92)				
	Frequency	Percentage (%)		
Nationality				
Saudi	12	13		
Filipino	41	44.6		
Indian	39	42.4		
Gender				
Male	3	3.3		
Female	89	96.7		
Job Title				
Staff Nurse	90	97.8		
Midwife	2	2.2		
Years of Service				
Less than 1 year	8	8.7		
1 - 2 years	37	40.2		
3 - 4 years	27	29.4		
More than 5 years	20	21.7		

A clear view of the exit interview results in Table 4 shows positive differences between 2019 and 2020, which indi-*Published by Sciedu Press*  cates that there is an increase in nurse satisfaction in 2020 compared to 2019. Related to salary, in 2019, (34) nurses indicated that their salary was the reason for their intention to leave the hospital, while for (10) nurses in 2020, the salary was the reason for their exit. In the respondent's concerns related to family and personnel issues in 2020 (43), nurses attributed the reason for their exit to family reasons, while in 2019 (34), nurses mentioned that the reasons for their exit were family reasons. On the other hand, (33) nurses in 2019 and 12) nurses in 2020 confirmed that their career issues were the main reasons for leaving their hospital. Furthermore, (9) nurses in 2019 and (6) nurses in 2020 expressed their desire to leave due to job benefits. Whereas (7) nurses in 2019 and (1) nurse in 2020 believe that the distance between work and home is the reason. There are only (6) nurses in 2029, and (1) nurse in 2020 stated that the conflict with managers was a reason for their exit. (27) nurses in 2019 and 2020 did not mention their reasons.

Staff retention and turnover rate are annually measured through a specific calculation equation as shown in Table 5, which illustrates that nursing retention increased from 80.30% in 2019 to 91.10% in 2020, while nursing turnover fell from 19.70% in 2019 to 8.90% in 2020, The results in Table 5 indicated that the implemented strategies had a positive impact on nursing retention and turnover.

# 4. DISCUSSION

Nurse turnover has a negative impact on the ability to provide a high quality of care, which may create more stress on other staff due to external and internal work environment factors. This can lead to critical changes in the behavior of nurses towards their jobs, resulting in low work satisfaction, low productivity, and nurses leaving the organization. Nurses' work environment satisfaction has a significant effect on their career and their desire to quit their jobs. In this study, researchers retrospectively reviewed improvement projects implemented to increase nursing retention at the KAMCJ in 2020. The researchers found that the strategies that were used focused on the most important factors that led nurses to leave their hospital, and they worked on improving them. (79%) of the nurses who participated in the satisfaction annual survey in 2020, believed that they have a significant role in achieving the organization's mission, vision, and goals, which showed that they feel engaged in the organization. A study conducted by Alsadaan<sup>[23]</sup> highlighted the challenges facing the nursing profession in Saudi Arabia and recommended that involving nurses in decision-making and organizational goals has a vital role in improving nurses' Satisfaction rates, which leads to an increase in the nursing retention rate.

# Table 3. Nursing satisfaction annual survey results in 2020

No.	Statement	Strongly	Agree	Neutral	Disagree	Strongly	Ranking is based on staff. Response Score	
110.	Statement	Agree	Agree	Neutrai	Disagree	Disagree	Positive	Negative
1 117							Responses	Responses
1. W	orking Environment Satisfaction							
1.	I get excited and inspired about going to work every day to meet my goals.	12%	44%	31%	9%	4%	56%	13%
2.	I feel completely involved in my work in terms of decision-making and problem-solving process.	16%	53%	22%	6%	3%	69%	9%
3.	Employees in the nursing department take the initiative to help other employees when the need arises.	18%	44%	27%	8%	3%	62 %	11%
4.	I understand how my work impacts the nursing organization's mission, vision, and goals.	22%	57%	17%	2%	2%	79%	4%
5.	Effective communication between senior leaders and employees in the nursing department.	19%	51%	21%	6%	3%	70%	9%
6.	Effective communication between nurses and pharmacy staff.	5%	27%	38%	22%	8%	32%	30%
7.	Effective communication between nurses and laboratory staff.	15%	56%	27%	1%	1%	71%	2%
8.	Effective communication between nurses and medical supply personnel.	8%	48%	37%	5%	2%	56%	7%
9.	Effective communication between nurses and Infection control staff.	9%	51%	30%	8%	2%	60%	10%
10.	Effective communication between nurses and human resources (HR) Personnel.	6%	31%	34%	21%	8%	37%	29%
11.	Effective communication between Nurses and medical team/physician	12%	58%	25%	4%	1%	70%	5%
12.	Nursing management recognizes high job performance and addresses concerns and suggestions.	10%	45%	32%	9%	4%	55%	13%

		Very				Very	Ranking is based on staff. Response Score	
No.	Statement	Satisfied	* Satisfied Neutral Dissat		Dissatisfied	tisfied Dissatisfied	Positive Responses	Negative Responses
2. Th	e Development And Promotion Opportunities	5						
1.	I am satisfied with my opportunities for professional growth through training and education.	14%	52%	28%	3%	3%	66	6
2.	I am satisfied with my overall compensation and benefits.	7%	30%	26%	24%	13%	37	37
3.	How satisfied are you working in your department?	30%	39%	21%	6%	4%	69	10
No.	Statement	Excellent	Very Good	Good	Fair	Poor	Not Applicable N/A	:
3. Qu	estions In Housing, Foods, And Transportation	on Facilitation	n Using The	Scale				
1.	Rate your overall satisfaction with cafeteria food services.	2%	4%	22%	30%	32%	10%	
2.	Rate your overall satisfaction with the transportation services offered at the complex. e.g weekly souq trip.	3%	7%	24%	16%	20%	30%	
3.	Rate the housing facilities provided by the KAMCJ. (Accommodation/Villa).	4%	6%	24%	14%	19%	33%	
4.	Rate the services offered at the KAMCJ Staff clinic.	8%	22%	51%	14%	5%	-	

NO	Reasons	Sample Responses in Number	Sample Responses in Number	
		(n = 131) In 2019	(n = 92) In 2020	
1.	Salary	34	10	
2.	Career	33	12	
3.	Conflict with manager and employees	6	1	
4.	Benefits	9	6	
5.	Closer to home	7	1	
6.	Family & personal	34	43	
7.	Others	8	19	

Table 4. Nurses	' exit interviews	responses in	years 2019	and 2020
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Table 5. Staff retention and turnover calculation rate in years 2019 and 2020

Turnover Rate Measurement in 2019	Turnover Rate Measurement in 2020
The no. of nurses left in a year (January 2019 – December 2019) X 100	The no. of nurses left in a year (January 2020 December 2020) X 100
The total no. of nurses at the beginning of the year (January 2019)	The total no. of nurses at the beginning of the year (January 2020)
Turnover rate = 131 nurses X 100	Turnover Rate = 92 nurses X 100
666 nurses	1030 nurses
Turn over rate = 19.70%	Turnover Rate = 8.90%
Retention Rate Measurement in 2019	Retention Rate Measurement in 2020
The no. of nurses who still working in nursing for 12 mosX100	The no. of nurses who still working in nursing for 12 mosX100
The total no. of nurses you had at the beginning of the year	The total no. of nurses you had at the beginning of the year
Retention Rate = 535 nurses X100	Retention Rate = 938 nurses x 100
666 nurses	1030 nurses
Retention Rate = 80.3 %	Retention Rate : = 91.10 %

Moreover, effective communication within the organization is important to keep nurses motivated, which can increase the retention rate. In the current study, most of the participants believed that there was effective communication between nurses and the multidisciplinary team in the hospital. In line with these findings, previous research has also found that effective communication within teams and cohesive relationships at work are important contributors to job satisfaction<sup>[24]</sup> On the other hand, development and promotion opportunities such as professional growth, training, and education can affect nurses' desire to stay on the job. This study's results showed that most of the nurses were satisfied with regard to the mentioned points. Alsadaan<sup>[23]</sup> suggested that giving nurses the opportunity to work shorter shifts and increase their monthly off duties can maintain staff satisfaction, which can increase the staff retention rate. Alsadaan also stated that providing staff nurses with educational programs and training sessions is crucial to increasing staff professional growth, which in return will enhance staff satisfaction. The housing facilities and entertainment results in this study have a significant impact on the nurses' turnover intentions. Quality of nursing work-life factors like food allowance, transportation, and free Wi-Fi affect their job satisfaction, desire to stay in nursing, and, most importantly, physical and psychological health. A study was carried out by Drennan and Ross<sup>[25]</sup> to assess the quality of nursing life and report nurses' dissatisfaction with their work life. On the contrary, prior studies reported that the intention to turnover could be explained by the nurse's satisfaction with the quality of nursing work life (QNWL).<sup>[26]</sup> A study based on data from 26% of nurses in Iran reported that stress and quality of working life were significantly negatively associated with nurses' turnover intentions.<sup>[27]</sup>

#### 4.1 Implications of the study

The results have a lot of important implications for getting nursing leaders to come up with effective and appropriate ways to deal with this serious problem and improve nurses' working conditions and quality of life. This will help nurses take better care of patients and make the organization work better. The strengths of this study are that it can be used to support evidence-based practices and lessons learned through experience utilization as an initial step in understanding the effectiveness of intervention strategies in the work life of nurses in order to increase staff satisfaction, reduce nurse turnover, and improve intention.

#### 4.2 Limitations

This study's retrospective design has numerous limitations, as does any other retrospective design, such as data bias that occurs when the study population is not drawn randomly from the target population, so the researcher cannot generalize their findings. Another significant limitation of retrospective study designs is the missing data from previously collected data.

#### 4.3 Recommendations

The authors developed these recommendations based on the findings of this study

1) Encourage nursing leaders to find out how happy nurses are with their jobs and to do regular exit interviews.

2) Using evidence-based practices to investigate the best strategies for increasing nurses' job satisfaction and retention.

3) Develop plans to improve the work environment, accommodations, and transportation options for nurses while taking into account all of the other things they mentioned in job satisfaction and exit interviews.

4) It is critical to consider that the questionnaire for measuring nursing satisfaction includes open-ended questions as well as maintaining confidentiality for nurses in order to offer them the opportunity to share their own opinions.

5) To be able to generalize the results, further research is required to comprehend and enhance the quality of nursing

work life by using prospective studies and random selection samples. Additionally, an in-depth study is required to explore the effect of social and cultural norms on the perception of expatriate nurses toward quality nursing work and turnover intention among Saudi nurses, including challenges and career opportunities.

### 5. CONCLUSION

The study's findings emphasize the importance of developing a multi-dimensional strategy addressing issues related to nursing job satisfaction such as professional growth and development and nurses' working conditions because developing a strategy based on reliable data obtained from targeted nurses is a key intervention in improving nurses' job satisfaction and nursing retention.

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# **CONFLICTS OF INTEREST DISCLOSURE**

The authors declare that there is no conflict of interest.

#### REFERENCES

- [1] World Health Organization, et al. Global strategy on human resources for health: workforce 2030. 2016.
- [2] Buchan J, et al. Rising pressure: the NHS workforce challenge. Health Foundation, 2017.
- Buchan J, Aiken L. Solving nursing shortages: a common priority. Journal of Clinical Nursing. 2008; 17(24): 3262-3268.
   PMid:19146584 https://doi.org/10.1111/j.1365-2702.20 08.02636.x
- Yang JH, et al. Impact of empowerment on professional practice environments and organizational commitment among nurses: A structural equation approach. International Journal of Nursing Practice. 2013; 19: 44-55. PMid:23425379 https://doi.org/10.1111/ijn.12 016
- [5] Coomber B, Louise BK. Impact of job satisfaction components on intent to leave and turnover for hospital-based nurses: a review of the research literature. International Journal of Nursing Studies. 2007; 44(2): 297-314. PMid:16631760 https://doi.org/10.1016/j. ijnurstu.2006.02.004
- [6] Aiken LH, et al. Nurse staffing and education and hospital mortality in nine European countries: a retrospective observational study. The Lancet. 2014; 383(9931): 1824-1830. PMid:24581683 https://doi.org/10.1016/S0140-6736(13)62631-8
- [7] Duffield CM, et al. A comparative review of nurse turnover rates and costs across countries. Journal of Advanced Nursing. 2014; 70(12): 2703-2712. PMid:25052582 https://doi.org/10.111 1/jan.12483
- [8] Brooks BA, Anderson MA. Defining quality of nursing work life. Nursing Economics. 2005; 23(6): 319-326.

- [9] Al-Nuaim LA. Views of women towards cesarean section. Saudi Medical Journal. 2004; 25(6): 707-710.
- [10] Alamri AS, Rasheed MF, Alfawzan NM. Reluctance of Saudi youth towards the nursing profession and the high rate of unemployment in Saudi Arabia: Causes and effects. Riyadh, Saudi Arabia, King Saud University; 2006.
- [11] Alhusaini HA. Obstacles to the efficiency and performance of Saudi nurses at the Ministry of Health, Riyadh Region: an analytical field study. Riyadh, Saudi Arabia: Ministry of Health. 2006.
- [12] World Health Organization, et al. State of the world's nursing 2020: investing in education, jobs and leadership. 2020.
- [13] Organization For Economic Co-Operation And Development. Beyond Containment: Health systems responses to COVID-19 in the OECD. OECD Publishing. 2020.
- [14] Ngo-Henha PE. A review of existing turnover intention theories. International Journal of Economics and Management Engineering. 2018; 11(11): 2760-2767.
- [15] Takase M. A concept analysis of turnover intention: Implications for nursing management. Collegian. 2010; 17(1): 3-12. PMid:20394269 https://doi.org/10.1016/j.colegn.2009.05.001
- [16] LI YIN, Jones CB. A literature review of nursing turnover costs. Journal of Nursing Management. 2013; 21(3): 405-418. PMid:23406301 https://doi.org/10.1111/j.1365-2834.2012.01411.x
- [17] Association of Clinical Documentation Integrity Specialists (ACDIS) A new survey shows increasing costs of nurse turnover in. Available from: https://acdis.org/articles/news-new-surve y-shows-increasing-costs-nurse-turnover 2022.
- [18] Colosi, NSI national health care retention & RN staffing report. NSI Nursing Solutions, Inc. Accessed on April. 2023.

- [19] Mohamed K, et al. Borderless collaboration is needed for COVID-19—A disease that knows no borders. Infection Control & Hospital Epidemiology. 2020; 41(10): 1245-1246. PMid:32319878 https://doi.org/10.1017/ice.2020.162
- [20] Labrague LJ. De Los Santos, Janet Alexis A. COVID-19 anxiety among front-line nurse: Predictive role of organizational support, personal resilience, and social support. Journal of Nursing Management. 2020; 28(7): 1653-1661. PMid:32770780 https: //doi.org/10.1111/jonm.13121
- [21] Ministry of Health, nursing administration in the King Abdullah Medical Complex in Jeddah (KAMCJ). Nursing Annual Report. 2019.
- [22] Hess DR. Retrospective studies, and chart reviews. Respiratory Care. 2004; 49(10): 1171-1174.
- [23] Alsadaan N, et al. Challenges facing the nursing profession in Saudi Arabia: An integrative review. 2021; 11(2): 395-403.
   PMid:34968216 https://doi.org/10.3390/nursrep1102003 8

- [24] Waltz LA, et al. Exploring job satisfaction and workplace engagement in millennial nurses. Journal of Nursing Management. 2020; 28(3): 673-681. PMid:32068932 https://doi.org/10.1111/jo nm.12981
- [25] Drennan VM, Ross F. Global nurse shortages: the facts, the impact and action for change. British Medical Bulletin. 2019; 130(1): 25-37. PMid:31086957 https://doi.org/10.1093/bmb/ldz014
- [26] 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): 09838. PMid:35815152 https: //doi.org/10.1016/j.heliyon.2022.e09838
- [27] Mosadeghrad AM, Ferlie E, Rosenberg D. A study of the relationship between job stress, quality of working life, and turnover intention among hospital employees. Health Services Management Research. 2011; 24(4): 170-181. PMid:22040944 https://doi.org/10.1 258/hsmr.2011.011009