## Patient safety culture in Jordanian primary health-care centres as perceived by nurses: a cross-sectional study

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#### **Abstract**

**Background:** Patient safety is a major concern, both in hospitals and primary care settings. The Jordan Medical Association has recommended that all health-care centres should try to improve patient safety through improving organizational culture, as it is in hospitals. In Jordan, a survey of patient safety culture has not yet been fully implemented in primary health-care centres.

Aims: To determine attitudes of nurses regarding patient safety culture in primary health-care centres in Jordan.

**Methods:** A cross-sectional descriptive study was conducted in 2017. Data were collected from 644 nurses working in all 91 accredited primary health-care centres in Jordan, based on the Safety Attitudes Questionnaire short form 36-item version

**Results:** The average positive response rate to the 6 domains of safety culture ranged from 58.54% to 75.63%. The highest average positive response rate was for job satisfaction and the lowest was for perceptions of management.

**Conclusions:** The areas that need improvement from nurses' perception are: teamwork climate, safety climate, stress recognition, and perception of management. Jordanian primary health-care nurses perceive their health centres as places that need more effort to improve safety culture.

Keywords: patient safety culture, safety attitudes questionnaire, nurses, primary health-care centres, Jordan

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#### Introduction

The World Health Organization (WHO) has proposed patient safety as a fundamental concept in the provision of care services (1). Due to unsafe medical care, millions of patients worldwide suffer from disabilities, injuries or death every year (2-4). Patient safety is a major concern, both in hospitals and in primary care settings (5). Safety in healthcare has therefore received substantial attention worldwide since the late 1990s (6,7). Patient safety is defined as "the prevention of harm caused by errors of commission and omission" (8). The Jordan Medical Association has recommended that all healthcare centres should try to improve patient safety through improving organizational culture, as it is in hospitals (9). The organizational structure is described as the common values, beliefs, behaviours, perceptions and attitudes of the staff in a healthcare centre (6-8,10-12).

A growing body of evidence indicates that the rate of medical errors and adverse events is associated with the attitudes of healthcare professionals towards safety (13). Nurses play a vital role in maintaining and promoting patient safety due to the nature of their work (14); being the frontline care providers, and spending more of their time in direct patient care activities than any other health professionals (15). The term safety culture is often used

interchangeably with safety climate and occasionally with attitudes toward safety (16).

Like elsewhere, the healthcare system in Jordan mainly consists of the public/semipublic sector and the private sector; each of which includes hospitals, primary care clinics, pharmacies, and other ancillary services. A total of 106 hospitals in Jordan, providing 12 081 beds, are now distributed disproportionately in the 2 sectors. The public sector accounts for the majority of hospital beds (67%) and private hospitals provide the remainder (33%). Overall, there are about 18 beds per 10 000 people. The development of protocols and guidelines for workers and the formation of committees to fight infection and improve the quality of service provision in hospitals are some of the immediate gains of such programmes. This means that the Ministry has institutionalized the process of quality improvement in health centres and hospitals in order to improve the quality of health services (17). In a study conducted in Jordan, Hayajneh et al. (18) found that 28% of all hospital admissions were affected by medical errors and the main types of error were: medication errors, wrong diagnosis, hospital-acquired infection, bed sores and patient falls.

It is probably axiomatic that patient safety is a primary concern in primary care settings. However, to date, most patient safety research has focused on hospital care. The goal of such research has mainly been to measure and strengthen safety culture in hospitals (5,15,19). Research on how to improve patient safety in primary care still awaits further verification (20).

In Jordan, a survey of patient safety culture has not yet been fully implemented in primary health centres. Therefore, the main aim of this study was to determine attitudes of nurses regarding patient safety culture in primary healthcare centres in Jordan, based on the Safety Attitudes Questionnaire (SAQ).

#### **Methods**

#### Study design and setting

This was a cross-sectional descriptive study. The Jordanian Ministry of Health has 91 accredited primary healthcare centres distributed in 12 governorates. Data were collected from all of these centres between September and October 2017.

#### Study participants

The study participants included all nurses who were willing to participate in the study at the time of data collection. The participants were selected based on the following criteria: being registered; associated or assistant nurse; having at least 1 year of experience in governmental health settings; having worked in the concerned centre for a minimum of 6 months; having Jordanian nationality; and giving signed informed consent. Accordingly, there were 286 registered nurses, 240 assistant nurses, and 118 associated nurses, with a total of 644 participants.

#### Data collection instrument

Data were collected by distributing a self-administered structured questionnaire that consisted of 2 parts. In Part 1, the demographic data of the participant nurses were collected. Part 2 comprised the Safety Attitudes Questionnaire (SAQ) short-form 36-item version. It is worth noting that this questionnaire has been used worldwide to evaluate nurses' awareness about patient safety culture. It is one of the tools most used to evaluate the safety culture through which healthcare is provided and used to investigate the relationship between the safety culture in healthcare and patient outcomes (21).

The SAQ allowed assessment of the perceptions and attitudes of health professionals related to patient safety in several clinical areas and health services, and was validated in a sample of 10 843 healthcare providers in 203 clinical areas, including intensive care units, operating theatres, inpatient units and outpatient clinics. The full version of the questionnaire includes 60 items, of which only 30 are standard and identical in all clinical settings. These 30 basic items made up the short version reviewed in this study (SAQ – Short Form), to which other items were added to provide a total of 36. The instrument measured perceptions of the healthcare professionals in 6 areas: teamwork climate (Items 1–6); safety climate (Items 7–13); job satisfaction (Items 15–19); stress recognition (Items 20–23); perception of management (Items 24–29)

and working conditions (Items 30–32). Items 14 and 33–36 were not part of the dimensions referred to above, and Items 2, 11 and 36 were written in reverse.

The answers to each question followed a 5-level Likert scale: A – strongly disagree, B –slightly disagree, C – neutral, D – slightly agree, E – strongly agree and X – not applicable. The final score ranged from 0 to 100, where 0 represented the worst and 100 the best perception (22). Results were converted from categorical to continuous variables as follows: strongly disagree = 0; slightly disagree = 25; neutral = 50; slightly agree = 75; and strongly agree = 100. A not applicable response was excluded from the scoring. Some items were reverse scored so that a higher score always represented a more positive attitude. For each respondent, a mean score of  $\geq$  75 for the items in a particular dimension indicated a positive safety attitude for that dimension (23).

#### Validity and reliability of the questionnaire

The questionnaire was translated into Arabic and was pilot tested on 60 nurses (registered, assistant and associated) from different primary healthcare centres. Reliability of the whole questionnaire was measured by Cronbach's  $\alpha$  0.9

#### Data collection

Prior to commencing data collection, nurse managers in each selected accredited primary healthcare centre were informed of the research and all relevant issues were discussed. Copies of the questionnaire, information sheet, ethical approval letters and consent forms were made available to them. Prior to commencing the survey, 24 research assistants were hired to help the researchers conduct the study. The research assistants' role was to distribute the questionnaires and clarify the questions. They also offered assistance to potential participants who needed help in completing the questionnaires. Finally, the research assistants' collected the completed questionnaire and returned them to the researchers. Duration of data collection was from September to October 2017.

#### **Ethical considerations**

This study was conducted in compliance with the ethical guidelines of Mutah University, so all participants received written consent about the purpose of the study, especially that the data were collected anonymously and treated with utmost confidentiality. We received permission to use the short form of the SAQ from the Centre for Health Care Quality & Safety. Prior to data collection, official approval to conduct this study was obtained from the Research and Ethics Committee at the Faculty of Nursing at Mutah University. Approval to conduct the study was obtained from the Ministry of Health. Participation in this study was voluntary. Participating nurses were asked to submit their formal written and informal verbal consents.

#### Statistical analysis

Data analysis was performed using IBM SPSS Statistics for Windows, version 21.0 (IBM, Armonk, NY, USA). Descriptive statistics using frequencies, percentages, means and standard deviation were calculated to describe the participants' demographic characteristics and *inferential statistics using* analysis of variance and t tests to compare subscale dimensions with P < 0.05 indicating statistical significance.

#### **Results**

#### Part 1: participants characteristics

Table 1 displays the demographic information of the 644 nurses who participated in the study. Most of the participants were female (n = 552; 85.7%), aged 31–40 years (n = 300; 46.6%), married (n = 437; 67.9%), educated to diploma level (n = 363; 56.3%), and registered nurses (n = 286; 44.4%). Finally, most of them (n = 495; 76.9%) had worked at a primary healthcare centre for  $\geq 5$  years.

#### Part 2: Survey results

Table 2 shows the average score obtained for each domain according to sex, age, job position, educational level, job experience and unit of work. Female nurses had better scores for patient safety attitude than male nurses had in all domains except stress recognition. No significant difference in the perception of patient safety was found between male and female nurses. Job satisfaction and working conditions were the domains with values > 75 (positive safety attitude) among female nurses.

All age categories had positive attitudes regarding job satisfaction and working conditions (Table 2). Assistant nurses had the highest positive score regarding job satisfaction, while associated nurses had the highest positive score regarding working conditions. Positive scores were obtained among those educated to diploma and bachelor's degree level for job satisfaction and working conditions (Figure 1).

The highest positive safety score (78.10%) toward job satisfaction was among nurses who had > 20 years' work experience, while the highest positive score toward working conditions was among nurses who had 11–15 years' experience (Table 2). Nurses working in accident and emergency, or maternal and child health had positive safety attitudes regarding job satisfaction and working conditions. Psychiatric unit nurses had a positive attitude toward working conditions, and dental unit nurses had a positive attitude toward job satisfaction.

Table 3 shows the distribution of the nurses' answers per item of the scale.

Regarding teamwork climate, almost two fifths of nurses expressed that it was difficult to speak openly when they perceived a problem related to patient care. Two thirds of them confirmed that disagreements in their clinical area were resolved appropriately and almost three quarters stated that it was easy for personnel to ask questions when there was something that they did

Table 1 Demographic characteristics of accredited primary health-care centre nurses (n = 644)

Variable	No.	%
Sex		
Male	92	14.3
Female	552	85.7
Age, yr		
20-30	181	28.1
31-40	300	46.6
41-50	136	21.1
> 50	27	4.2
Marital status		
Single	90	14.0
Married	437	67.9
Separated	109	16.9
Divorced	8	1.2
Education level		
Diploma	363	56.3
Bachelor	259	40.2
Master	21	3.3
PhD	1	.2
Job positions		
Registered nurse	286	44-4
Associated nurse	118	18.3
Assistant nurse	240	37-3
Unit		
General clinic	166	25.8
Accident & emergency	208	32.3
Maternity & child care	177	27.5
Psychiatry	17	2.6
Dental	76	11.8
Job experience, yr		
1-5	149	23.1
6-10	154	23.9
11-15	150	23.3
16-20	88	13.7
≥ 20	103	16.0

not understand. Most of them (80.4%) answered that the physicians and nurses worked together as a well-coordinated team.

Regarding safety climate, three quarters of participants would feel safe being treated as a patient at their clinics, and medical errors were handled appropriately in this clinical area. A total of 68.9% confirmed that they knew the proper channels to direct questions regarding patient safety, whereas 36.3% stated that it was difficult to discuss errors in this clinical area. However, 68.6% responded that they were encouraged by their colleagues to report any patient safety concerns, and 76.1% stated that the culture in this clinical area made it easy for them to learn from the errors of others.

Table 2 Association of mean scores of each safety culture domain according to demographic characteristics (n = 644)

Characteristics, mean (SD)	Teamwork climate	Safety climate	Job satisfaction	Stress recognition	Perceptions of management	Working conditions	
Sex							
Male	65.26 (17.55)	62.24 (15.62)	73.36 (16.30)	64.80 (26.96)	56.81 (21.0)	74.86 (18.01)	
Female	66.17 (15.68)	64.97 (15.22)	76.0 (16.10)	61.6 (24.76)	58.83 (21.19)	75.34 (17.92)	
t	-0.508	-1.577	-1.453	1.130	-0.842	-0.2361	
P	0.611	0.115	0.147	0.259	0.40	0.814	
Age, yr							
20-30	65.35 (17.88)	63.91 (15.25)	75.46 (16.92)	65.15 (26.32)	59.50 (20.62)	75.44 (18.37)	
31-40	65.58 (15.02)	64.19 (14.68)	74.18 (14.70)	62.16 (24.0)	57.62 (20.52)	74.47 (18.06)	
41-50	68.19 (14.46)	66.66 (15.42)	78.22 (18.42)	59.19 (25.19)	58.39 (23.53)	76.94 (16.38)	
> 50	64.96 (19.06)	63.04 (21.04)	79.81 (11.64)	54.86 (26.30)	62.96 (19.72)	74.53 (21.01)	
F	1.064	1.104	2.593	2.268	0.703	0.607	
P	0.364	0.347	0.052	0.079	0.550	0.611	
Job positions							
Registered nurse	64.81(16.86)	63.48 (15.19)	74.64 (15.87)	61.40 (25.15) 57.94 (20.89)		75.04 (18.35)	
Associated nurse	68.75 (11.81)	65.92 (13.66)	74.83 (15.28)	65.41 (23.63)	63.60 (17.60)	76.32 (14.93)	
Assistant nurse	66.18 (16.47)	65.24 (16.15)	77.19 (16.79)	61.22 (25.68)	56.82 (22.72)	75.02 (18.78)	
F	2.56	1.41	1.80	1.28	4.23	0.248	
P	0.078	0.245	0.166	0.278	0.015	0.780	
Educational level							
Diploma	66.65 (15.78)	65.92 (14.92)	75.84 (16.77)	62.10 (25.49)	58.52 (21.64)	74.89 (18.80)	
Bachelor's	65.68 (15.98)	63.49 (14.93)	75.56 (14.47)	62.83 (24.69)	59.65 (19.40)	76.18 (16.12)	
Master's	60.91 (17.89)	55.61 (21.82)	74.76 (22.27)	51.78 (22.37)	45.23 )29.55(	70.83 (23.32)	
PhD	45.83	50.00	35.00	68.75	60.00	68.75	
F	1.485	4.127	2.166	1.282	3.030	0.749	
P	0.218	0.007	0.091	0.280	0.029	0.523	
Job experience, yr							
1-5	66.07 (17.25)	63.87 (16.38)	73.98 (17.72)	61.36(26.51)	58.69 (22.31)	75.58 (20.06)	
6-10	65.55 (16.30)	63.56 (14.91)	76.30 (13.64)	65.01 (25.83)	58.62 (20.20)	74.51 (17.30)	
11-15	67.44 (14.28)	64.42 (14.57)	74.96 (15.66)	63.87 (22.91)	60.30 (18.53)	78.12 (13.0)	
16-20	63.82 (15.14)	65.58 (14.17)	75.45 (15.84)	59.01 (25.61)	57.70 (21.29)	70.83 (21.87)	
> 20	66.58 (16.49)	66.54 (16.27)	78.10 (17.98)	58.67 (24.14)	56.30 (24.42	75.54 (17.59)	
F	0.779	0.762	1.124	1.555	0.574	2.390	
P	0.539	0.550	0.344	0.185	0.682	0.050	
Unit							
General clinic	64.58 (16.24)	61.68 (15.99)	74.51 (18.31)	64.42 (25.50)	58.30 (20.92)	73.37 (18.49)	
A&E	68.12 (15.14)	65.76 (14.02)	76.64 (15.03)	61.74 (24.96)	58.36 (21.24)	76.41 (16.42)	
MCH	65.53 (16.66)	65.48 (15.61)	75.90 (15.46)	58.12 (26.06)	58.62 (20.78)	76.55 (18.69)	
Psychiatry	68.13 (12.66)	64.70 (11.83)	72.05 (13.46)	66.54 (20.72)	64.68 (12.17)	76.83 (9.57)	
Dental	64.25 (16.13)	65.55 (16.56)	75.46 (16.23)	66.03 (22.20)	58.06 (24.03)	72.94 (19.93)	
F	1.599	2.027	0.622	2.092	0.355	1.255	
P	0.173	0.089	0.647	0.080	0.841	0.286	

A&E = accident and emergency; MCH = maternal and child health; SD = standard deviation.

Regarding job satisfaction, almost three quarters of participants stated that they liked their job, with responses such as "working here is like being part of a large family"; "this is a good place to work in", "we are proud to work in this clinical area", and "the morale in this clinical area is high".

In the domain of stress recognition, 68.2% of participants confessed that they were less effective at work when fatigued, and 59.3% were more likely to make errors in tense or hostile situations.

In relation to perceptions of management, 62.6% of the nurses answered that management did not knowingly

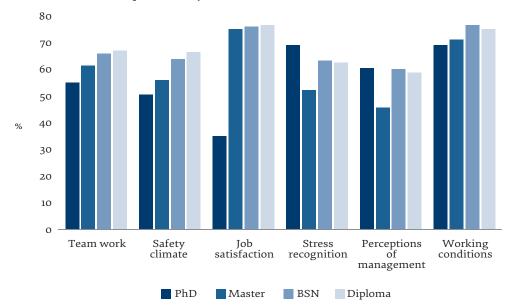


Figure 1 Educational levels in relation to patient safety domains

compromise patient safety.

In assessing working conditions, almost two thirds of participants stated that the health centre did a good job of training new personnel; all necessary information for diagnostic and therapeutic decisions was routinely available to them, and trainees in their discipline were adequately supervised.

#### **Discussion**

The present study is the first to document patient safety culture attitudes among nurses in accredited primary healthcare centres in Jordan. The SAQ showed that job satisfaction and working conditions were the domains with values > 75% for positive safety attitude among nurses, while stress recognition and perception of management received the lowest scores. These findings are similar to a study about the attitude of academic ambulatory nurses toward patient safety culture in Saudi Arabia. Nurses had the highest level (88%) of positive attitudes toward their job; the second highest positive attitude (77%) was toward working conditions; and stress recognition and perception of management received lower scores (24). This may be explained by the resemblance between the two neighbouring Arab countries, as well as the presence of many Jordanian nurses working in Saudi Arabia.

Our results are also similar to the findings of a study carried out in Egypt, where job satisfaction had the highest mean scores (> 75%), while perception of management received the lowest (≤ 75%) (25). Furthermore, a negative perception of stress recognition was found in a study of patient safety culture among Egyptian healthcare employees (26), and similar findings have been reported in other studies (27,28). In Palestine, job satisfaction was ranked the highest safety attitude domain (27). In Brazil, the job satisfaction and work conditions domains were perceived by professionals as positive for safety attitude

(28). In Ribeirão Preto City, Brazil, work satisfaction was the only domain with values > 75% (29). This might be due to a higher degree of attachment to their own work place among nurses and more experienced employees (30). The findings of the Brazilian study (29) demonstrated that only the job satisfaction domain is evidenced by the positive experiences with work; it is perceived by professionals as positive for an attitude of safety in the workplace. The domains that stand out with lower scores are perception of hospital management, perception of stress and perception of unit management (28). The positivity toward job satisfaction indicates that participants are reasonably satisfied with their job and will be positively involved in accepting and implementing future quality improvement initiatives. In addition, the importance of job satisfaction cannot be ignored because it is imperative, can improve staff enthusiasm, and stimulate productivity as well as quality of work (31). Conversely, a study conducted in Norway indicated that the overall mean score was 79.1% for teamwork climate and 72.3% for safety climate (32). Participants showed positive perceptions of 5 domains: job satisfaction, teamwork climate, working conditions, management and safety climate compared to our study, which showed positive perception only for 2 domains: job satisfaction and working conditions. This means that the overall perception for all domains was < 50%, which is in line with findings of Elsous et al. (31).

Our study found that the highest positive safety score (78.10%) toward job satisfaction was among nurses with > 20 years' of experience, while the highest positive score toward working conditions was among nurses with 11-15 years of experience. This could be because, as people become more experienced, they become more aware of the safety practices undertaken in their institutions (12). It might be due to the belief that managers are more satisfied with older nurses' support because older nurses are more knowledgeable, display more positive attitudes

Table 3 Distribution of answers of accredited primary health-care centre nurses per item

Table 3 Distribution of answers of accredited primary health-car Questions		Disagree and strongly disagree		Neutral		Agree and strongly agree	
		n	%	n	%	n	%
1.	Nurse input is well received in this clinical area	69	10.7	64	9.9	500	77.6
2.	R <sup>a</sup> . In this clinical area, it is difficult to speak up if I perceive a problem with patient care.	241	37.4	126	19.6	252	39.1
3.	Disagreements in this clinical area are resolved appropriately	97	15.1	98	15.2	426	66.1
4.	I have the support I need from other personnel to care for patients	93	14.4	49	7.6	489	75.9
5.	It is easy for personnel here to ask questions when there is something that they do not understand	79	12.3	56	8.7	501	77.8
6.	The physicians and nurses here work together as a well-coordinated team	57	8.9	62	9.6	518	80.4
7.	I would feel safe being treated here as a patient	73	11.3	83	12.9	477	74.1
8.	Medical errors are handled appropriately in this clinical area	73	11.3	81	12.6	475	73.8
9.	I know the proper channels to direct questions regarding patient safety in this clinical area	73	11.3	97	15.1	444	68.9
10.	I receive appropriate feedback about my performance	113	17.5	97	15.1	408	63.4
11.	R <sup>a</sup> . In this clinical area, it is difficult to discuss errors	256	39.8	133	20.7	234	36.3
12.	I am encouraged by my colleagues to report any patient safety concerns I may have	78	12.1	99	15.4	442	68.6
13.	The culture in this clinical area makes it easy to learn from the errors of others	63	9.8	72	11.2	490	76.1
14.	My suggestions about safety would be acted upon if I expressed them to management	102	15.8	152	23.6	361	56.1
15.	I like my job	92	14.3	48	7.5	496	77
16.	Working here is like being part of a large family	84	13	82	12.7	465	72.2
17.	This is a good place to work	89	13.8	75	11.6	475	73.8
18.	I am proud to work in this clinical area	70	10.9	78	12.1	485	75-3
19.	Morale in this clinical area is high	79	12.3	84	13	470	73
20.	When my workload becomes excessive, my performance is impaired	195	30.3	73	11.3	364	56.5
21.	I am less effective at work when fatigued	137	21.3	53	8.2	439	68.2
22.	I am more likely to make errors in tense or hostile situations	173	26.9	73	11.3	382	59.3
23.	Fatigue impairs my performance during emergency situations	186	28.9	61	9.5	380	59
24.	Management supports my daily efforts	152	23.6	152	23.6	303	47
25.	Management does not knowingly compromise patient safety	99	15.4	116	18	403	62.6
26.	Management is doing a good job	110	17.1	134	20.8	381	59.2
27.	Problem personnel are dealt with constructively by our:	127	19.7	116	18	376	58.4
28.	I get adequate, timely info about events that might affect my work:	131	20.3	110	17.1	372	57.8
29.	The levels of staffing in this clinical area are sufficient to handle the number of patients	223	34.6	54	8.4	342	53.1
30.	This health centre does a good job of training new personnel	123	19.1	81	12.6	428	66.5
31.	All the necessary information for diagnostic and therapeutic decisions is routinely available to me	85	13.2	116	18	431	66.9
32.	Trainees in my discipline are adequately supervised	121	18.8	89	13.8	426	66.1
33.	I experience good collaboration with nurses in this clinical area	49	7.6	52	8.1	536	83.2
34.	I experience good collaboration with staff physicians in this clinical area	47	7.3	53	8.2	539	83.7
35.	I experience good collaboration with pharmacists in this clinical area	62	9.6	71	11	503	78.1
36.	Ra. Communication breakdowns that lead to delays in delivery of care are common.	264	41	98	15.2	267	41.5

<sup>a</sup>Reverse items

to safety and are possibly more committed to work than younger workers are (6).

On teamwork climate, 39.1% of nurses claimed that it was difficult to speak up when they perceived a problem related to patient care. A total of 76.1% affirmed that the culture in this clinical area made it easy to learn from the errors of others; 56.1% answered that suggestions about safety would be acted upon if they were expressed to management; and 63.4% stated that they received appropriate feedback about performance. However, a study in Brazil showed corresponding values of 62%, 49%, 57% and 45%, respectively(29).

Our study showed a positive score attributed to job satisfaction. This could possibly be due to the decision of the Council of Ministers and Ministry of Health in Jordan, according to which, the proportion of incentives for nurses in the Ministry has been increased from 20 to 25%. The increase has taken in all categories, including legal (registered) nurses, participants and assistants. In addition, work is currently underway to improve both mobility allowance and acquisition allowance on a fair basis that takes into account the provisions of the system for travel.

Based on this study, the safety culture at these primary health care centres services (i.e., the negative score was 64.8%) definitely needs to be improved. Therefore, patient safety issues should be addressed more systematically in primary health care. By identifying areas of weaknesses and thus motivating immediate interventions, the risk of medical errors and negative patient outcomes could be reduced to the minimum (30).

The importance of developing patient safety programmes aimed at giving greater attention to the patient safety culture in primary healthcare centres, as in hospitals, is one immediate implication from our study. In addition to optimizing the existing patient safety culture, these programmes can help improve the perception of nurses in these settings. An understanding

of nurses' perceptions regarding adverse events is therefore essential for the implementation of patient safety protocols and strategies to manage and improve nursing care. However, there is still a need to know more about primary healthcare nurses' perceptions regarding patient safety.

#### Recommendations

- Information technology should be utilized to improve patient safety in primary healthcare centres (e.g. automated drug order or entry systems).
- Initial education and continuous learning programmes aimed at healthcare providers should integrate patient safety topics into the educational curricula.
- Policy-makers and health planners should build a patient-safe infrastructure and should promote organizational culture in primary healthcare centres.
- Nurses, patients and families, as well as leaders and managers should all participate in the strategies that are developed by policy-makers and health planners.
- It is finally recommended to conduct further surveys and studies that contribute to quality improvement associated with nurses' perception of safety culture in primary healthcare centres.

#### Conclusion

Jordanian primary healthcare nurses perceive their health centres as places that need more effort to improve patient safety culture. Ongoing patient safety improvement programmes, periodic safety culture measurements involving key stakeholders, planning safety improvements and raising nurses' awareness about patient safety are recommended.

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**Competing interests:** None declared.

# La culture de la sécurité des patients dans les centres de soins de santé primaires en Jordanie du point de vue des personnels infirmiers : étude transversale Résumé

**Contexte :** La sécurité des patients constitue une préoccupation majeure, tant dans les hôpitaux que dans les établissements de soins primaires. Selon l'Association médicale de Jordanie, tous les centres de soins devraient s'efforcer d'améliorer la sécurité des patients en renforçant la culture institutionnelle, comme c'est le cas dans les hôpitaux. En Jordanie, aucune étude complète n'a encore été réalisée sur la culture de la sécurité des patients dans les centres de soins de santé primaires.

**Objectifs :** Évaluer les attitudes des personnels infirmiers à l'égard de la sécurité des patients dans les centres de soins de santé primaires en Jordanie.

**Méthodes :** Une étude transversale descriptive a été menée en 2017. Des données ont été recueillies auprès de 644 membres du personnel infirmier travaillant dans les 91 centres de soins de santé primaires accrédités en Jordanie, en utilisant la version courte (36 items) du questionnaire sur les attitudes à l'égard de la sécurité.

**Résultats :** Le taux moyen de réponses positives dans les six domaines de la culture de la sécurité était compris entre 58,54 % et 75,63 %. Le taux le plus élevé portait sur la satisfaction au travail et le plus faible concernait la perception de l'administration.

**Conclusions :** Selon les personnels infirmiers, les points à améliorer sont les suivants : esprit d'équipe, climat de sécurité, reconnaissance du stress et perception de l'administration. Les personnels infirmiers qui travaillent dans des services de soins de santé primaires en Jordanie estiment que des efforts supplémentaires doivent être déployés dans leurs établissements pour améliorer la culture de la sécurité.

### ثقافة سلامة المرضى في مراكز الرعاية الصحية الأولية الأردنية كما تتصورها طواقم التمريض: دراسة مقطعية

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#### الخلاصة

الخلفية: تُمثّل سلامة المرضى شاغلاً رئيسياً، سواءً في المستشفيات أو مواقع الرعاية الأولية. وأوصت نقابة الأطباء الأردنية جميع مراكز الرعاية الصحية بالسعي إلى تحسين سلامة المرضى من خلال تعزيز الثقافة التنظيمية، كما هو الحال في المستشفيات. ولم تُنفَّذ بعدُ في الأردن دراسة استقصائية حول ثقافة سلامة المرضى تنفيذاً كاملاً في مراكز الرعاية الصحية الأولية.

الأهداف: هدفت هذه الدراسة إلى تحديد مواقف طواقم التمريض من ثقافة سلامة المرضى في مراكز الرعاية الصحية الأولية في الأردن.

طرق البحث: أُجريت دراسة وَصْفية مقطعية في عام 2017. وجُمعت البيانات من 644 ممرضة وممرضاً ممن يعملون في جميع مراكز الرعاية الصحية الأولية المعتمدة البالغ عددها 91 مركزاً في الأردن، استناداً إلى نموذج موجَز من استبيان مواقف السلامة يتألف من 36 بنداً.

النتائج: يتراوح متوسط معدل الاستجابة الإيجابية لمجالات ثقافة السلامة الستة بين 54.82٪ و56.67٪. وكان أعلى متوسط لمعدل الاستجابة الإيجابية يتعلق بالرضا عن الدور الوظيفي، فيها يتعلق أدنى معدل بتصورات الإدارة.

الاستنتاجات: المجالات التي تحتاج إلى تحسين من منظور طاقم التمريض هي: مناخ العمل الجهاعي، ومناخ السلامة، والاعتراف بالإجهاد، وتصوُّر الإدارة. وينظر طاقم التمريض المعني بالرعاية الصحية الأولية في الأردن إلى المراكز الصحية التي يعملون بها على أنها أماكن تحتاج إلى مزيد من الجهد لتعزيز ثقافة السلامة.

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