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Original Article

The level of teamwork and associated factors in the selected hospitals from the nurses' perspective: A cross-sectional study

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ABSTRACT

Background & Aim: Teamwork represents a fundamental prerequisite for providing quality and safe care. This study aimed to determine the level of teamwork and the factors that influence the level of teamwork in selected hospitals in the Slovak Republic.
Methods & Materials: The descriptive cross-sectional study included 207 nurses from 12 departments of three district hospitals in the Slovak Republic. Data were collected between November 2022 and February 2023 using a questionnaire that evaluated nursing teamwork, the Nursing Teamwork Survey. Data were analyzed using descriptive and inferential statistics.
Results: Nurses evaluated the level of teamwork as (3.74± 0.64), which means ideal less than 75% of the time during the last working shift. The best-rated subscale was the Shared mental model (4.17± 0.49), while the worst-rated subscale was Team orientation (2.47± 0.85). Differences in teamwork level were found based on unit type, education, number of hours worked, number of overtime hours, and perceived staff adequacy ($p \leq 0.05$). The correlation analysis revealed associations between teamwork and job satisfaction, teamwork satisfaction, subjective quality evaluation, and patient safety, as well as with the number of patients in the last shift, including the number of admitted and discharged patients.
Conclusion: By regularly determining teamwork levels, it is possible to identify the strengths and weaknesses of nursing teams. Analyzing team weaknesses and implementing targeted measures can lead to strengthening teamwork and improving team functioning.

Introduction

Effective teamwork is a fundamental prerequisite to providing safe, high-quality, patient-centered care. Nursing care is not provided solely by bedside nurses; it involves the entire nursing team. Therefore, the delivery of quality and safe care is influenced by professional skills, knowledge, and what are often referred to as "soft skills" of individual team members, reflected in teamwork and its attributes (1,2). Teamwork minimizes the occurrence of adverse events and helps prevent errors, mistakes, and near misses that could jeopardize the safety of patients and healthcare professionals (1, 3). A team culture must be established among its members, involving shared values and transparent communication so effective teamwork can be achieved (1,4). The principles of teamwork were already explored in 2005 by Salas and colleagues, who formulated the theory of teamwork. This theory encompasses five main attributes: team orientation, team leadership, mutual performance, monitoring, support, and adaptation. In their subsequent work (5), the authors introduced the concept of shared mental models as a significant attribute in achieving effective teamwork. A shared understanding of tasks contributes to maintaining performance and participation, especially in complex clinical situations. The roles of leaders are entwined

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with decision-making processes, creating a conducive work environment, equitably distributing workload and tasks among staff, conflict resolution, and, lastly, team development, member cooperation, and professional skills enhancement (6, 7). To monitor mutual results, the team should have a clear shared vision. A shared goal contributes to a common understanding of the objectives of the team. Clear and comprehensible objectives are not only the initial step towards their attainment but also offer the opportunity to assess team performance. Feedback enables team improvement through self-evaluation, adaptation, and learning from experience. Salas et al. (5, 8) emphasized expanding mutual outcome monitoring to include briefings and debriefings. This cyclical approach facilitates team learning and development, self-assessment of efficiency, processes, outcomes, morale, and team safety. The Agency for Healthcare Research and Quality (AHRQ) also highlights this cycle as part of interventions to enhance teamwork (9, 10).

Patient safety and its culture are currently considered a top priority in healthcare facilities, with the primary objective of improving safety. Teamwork is a key aspect of patient safety. Similarly to safety, continuous reinforcement of teamwork is essential (10). A better understanding of team dynamics, the underlying principles, and the identification of potential areas for improvement within teams can only be achieved through regular determination of teamwork level (11). In the European region, studies focused on the concept of teamwork are scarce, as this concept is primarily integrated into the culture of patient safety. In Slovakia, research that specifically targets teamwork as a central component is entirely lacking. This descriptive cross-sectional study aimed to determine the level of teamwork and the factors that influence the level of teamwork in selected district hospitals in the Slovak Republic.

Methods

This descriptive cross-sectional study was carried out according to the STROBE guidelines and received approval from the institutional ethics committee (ref no. 43/2022).

The study involved 12 clinics or departments providing care for adult patients from 3 district hospitals in 2 regions of the Slovak Republic. The sample was selected using the convenience selection method after obtaining written consent to carry out the research. Respondents were included if they were nurses or practical nurses, worked in adult patient care, and agreed to participate in the research. These two roles were selected because they are required to collaborate closely while providing nursing care to hospital patients. A total of 317 questionnaires were distributed, of which 207 were returned (response rate: 65.29%). Therefore, the sample consisted of 207 participants.

Data was collected between November 2022 and February 2023 using the specific Nursing Teamwork Survey (NTS) tool. Permission to use and translate the tool into Slovak was obtained in November 2021 (2). The tool was translated using the forward-backward method. The face and content validity were assessed within the translation process. Face validity was examined by seven nurses working in medical and surgical departments who considered the NTS as a comprehensive instrument, and all items were, according to their assessment, relevant to measure the level of teamwork.

Furthermore, content validity was evaluated by a panel of six experts (one head nurse, two nurse managers working in medical-surgical care units, and three nurse educators whose background is in clinical disciplines). The experts evaluated each item of the NTS on a 4-point Likert scale (1– not relevant, 4– highly relevant). The overall content validity index (S-CVI), calculated as the average assessment of individual elements (I-CVI), was 0.94, considered excellent. At the individual item level, the expert agreement ranged between 0.86 and 0.97 (12). Based on these results, no adjustments were made to the instrument, as a panel of experts evaluated the items of the NTS tool to be relevant.

Based on Salas' theory of teamwork, the NTS assesses teamwork levels in acute care

from the perspective of nursing team members (registered nurses, practical nurses, nurse leaders, nurse aids, etc.). The NTS comprises 33 items grouped into five subscales reflecting Salas' teamwork theory: trust (7 items), team orientation (9 items), support (6 items), shared mental models (7 items), and team leadership (4 items). Respondents are required to express how frequently they can describe their team's behavior based on each statement. The tool comprehensively assesses aspects of work within nursing teams, focusing mainly on subjective opinions on team functionality or dysfunction. It allows respondents to assess their role in the team, team leadership, mutual assistance, clarity of instruction and communicating information, team flexibility, workload distribution, team cohesion, and the presence of respect and trust among members. It also examines the potential for innovation within the team, responses to constructive criticism, perception of strengths and weaknesses, conflict resolution, and feedback quality. Respondents rate each item using a frequency scale (rarely – 1; 25% of the time – 2; 50% – 3; 75% of the time – 4; always – 5). The tool includes several negatively worded items that require recoding. Higher scores indicate a better assessment of teamwork. The tool also incorporates selected sociodemographic data, which represents categorical variables (unit type, education, job position, age, hours worked per week, total professional experience in the position, professional experience in the current position, number of overtime hours, intention to leave the current position, perceived staff adequacy). Several other characteristics were collected aiming at fulfilling the study objectives that represent primarily ordinal variables, as follows: job satisfaction, job satisfaction in current position, satisfaction with teamwork, subjective evaluation of care quality, subjective evaluation of patient safety, number of patients in the last shift, number of admitted patients in the last shift, and number of discharged patients in the last shift.

Data were analyzed using the IBM SPSS version 25.0 statistical program. The high acceptability of the NTS tool was confirmed by assessing missing data (0.1% – 0.3%). Descriptive statistics (mean, standard deviation, frequency, minimum, maximum) were used to describe the NTS tool and the research sample. Based on the author's recommendation of the original tool (2), mean values aligned with the standard deviations were calculated for the particular subscales of the NTS and the whole instrument. Furthermore, the distribution of the data was verified using the Kolmogorov-Smirnov test, the result ($p < 0.05$) indicating that the data did not have a normal distribution. Therefore, nonparametric tests were further used in data analysis. Differences in teamwork level based on selected categorical variables (unit type, education, job position, age, number of hours worked, total professional experience, professional experience in the current unit, number of overtime hours, intention to leave the position, and perceived staff adequacy) were analyzed using the Kruskal-Wallis test to test three or more categories of variables. Using the Spearman correlation coefficient (r), statistically significant associations were tested between the level of teamwork (overall NTS score and subscales of the NTS) and ordinal variables (job satisfaction, job satisfaction in the current position, satisfaction with teamwork, subjective evaluation of care quality, subjective evaluation of patient safety, number of patients in the last shift, number of admitted patients in the last shift, and number of discharged patients in the last shift). The results were tested at a significance level of $p \leq 0.05$. The reliability of the NTS tool was evaluated using the Cronbach alpha coefficient (α). The alpha value was 0.870, indicating the reliability of the NTS tool.

Results

The sample consisted of 207 registered and practical nurses with an average age of 38.22 (SD=11.16) years. The largest group of respondents were registered nurses (148; 71.4%) who worked in surgical disciplines (105; 50.7%). The sample characteristics are reported in Table 1.

Table 1. Sample characteristics (N= 207)

Variable		N	%
Age	20-30 years 31-40 years 41-50 years 51 years and more M ± SD (range) 38.22 ± 11.16 (18-64)	66 56 53 32	31.9 27.1 25.6 15.4
Education	Secondary vocational education Higher education Bachelor degree Master's degree or higher	64 55 63 25	30.9 26.6 30.4 12.1
Professional experience in the current unit (years)	Up to 5 years 6–10 years 11–15 years 16–20 years 21 years and more M ± SD (range) 10.82 ± 9.95 (0.5-40)	93 35 20 24 35	44.9 16.9 9.6 11.7 16.9
Total professional experience (years)	Up to 5 years 6–10 years 11–15 years 16–20 years 21 years and more M ± SD (range) 14.66 ± 11.05 (0.5-41)	58 35 28 26 60	28.0 16.9 13.5 12.6 71.0
Unit type	Medical disciplines Surgical disciplines Intensive care disciplines	65 105 37	31.4 50.7 17.9
Job position	Registered nurse Practical nurse	148 59	71.4 28.6
Number of hours worked per week	Less than 30 hours per week 30-40 hours per week 40 hours or more per week	20 165 22	9.7 79.7 10.6
Overtime hours in past three months	None Less than 12 hours More than 12 hours	25 113 69	12.1 54.6 33.3
Perceived staff adequacy	0 % of the time (not adequate at all) 25 % of the time 50 % of the time 75 % of the time 100 % of the time (fully adequate)	29 36 94 31 17	14.0 17.4 45.4 14.9 8.3
Intention to leave current position	Yes, in the next six months Yes, in the next year No intention to leave	10 29 168	4.8 14.0 81.2

Variable	Min	Max	M	SD
Job satisfaction	1	5	2.06	0.632
Job satisfaction in the current position	1	5	2.11	0,698
Satisfaction with teamwork	1	5	2.03	0.594
Subjective evaluation of care quality	1	10	7.96	1.329
Subjective evaluation of patient safety	1	5	4.08	0.688
Number of patients in the last shift	1	21	12.45	6.675
Number of admitted patients in the last shift	0	8	3.29	2.615
Number of discharged patients in the last shift	0	6	3.08	1.980

The mean score for the NTS tool was 3.74 (SD= 0.64) out of a total of 5, indicating that the prevalence of ideal teamwork was less than 75% of the time during the last shift of work (Table 2). The highest-rated subscale was Shared mental models (4.17 ± 0.49), followed by the Backup subscale (4.14 ± 0.55). The lowest-rated subscale was Team orientation (2.47 ± 0.85).

Table 2. Level of teamwork based on its subscales

Subscales	Min	Max	M	SD
Trust	1	5	4.04	0.645
Team orientation	1	5	2.47	0.851
Backup	1	5	4.14	0.552
Shared mental models	1	5	4.17	0.491
Team leader	1	5	3.95	0.678
The overall score of the NTS	1	5	3.74	0.649

We identified statistically significant differences in teamwork level based on selected variables (Table 3). The Trust (p= 0.001) and Team leader (p= 0.002) subscales were rated highest by nurses and practical nurses working in departments of internal medicine. The Team orientation (p= 0.004) and Shared mental models (p= 0.041) subscales were rated highest by nurses working in intensive care units. The Trust subscale (p= 0.015) was best rated by nurses with higher professional education. Nurses and practical nurses working 30 to 40 hours per week rated the Trust (p< 0.001), Backup (p= 0.010), Shared mental models (p= 0.011), and Team leader (p= 0.011) subscales the highest. The Trust (p< 0.001), Backup (p= 0.011), and Team leader subscales (p = 0.038) were best rated by nurses and practical nurses who worked 1 to 12 overtime hours in the last month. The Team orientation subscale (p< 0.001) was best rated by nurses who worked more than 12 overtime hours per month. Team orientation (p= 0.029) was best rated by nurses and practical nurses who perceived sufficient staff availability for 50% of their last shift.

Table 3. Differences in rating teamwork based on selected variables

	Trust		**Team orientation**		**Backup**		**Shared mental models**		**Team leader**		**Overall NTS score**	
Variables**	**M_{rank}**	**p-value**	**M_{rank}**	**p-value**	**M_{rank}**	**p-value**	**M_{rank}**	**p-value**	**M_{rank}**	**p-value**	**M_{rank}**	**p-value**
Unit type												
Medical disciplines	102.48		94.42		103.03		88.52		95.52		92.18	
Surgical disciplines	115.45	0.001*	99.70	0.004*	106.88	0.706	110.69	0.041*	17.40	0.002*	109.90	0.155
Intensive care disciplines	74.16		133.04		97.54		112.22		80.85		108.04	
Education												
Secondary vocational education	98.88		120.29		95.56		93.20		98.14		90.48	
Higher education	118.14	0.015*	98.95	0.340	109.43	0.530	115.37	0.219	117.72	0.203	116.75	0.116
Bachelor degree	108.88		102.13		108.87		120.51		102.78		104.80	
Master's degree or higher	73.72		124.20		101.38		110.40		91.90		108.54	
Job position												
Registered nurse	103.57	0.997	107.80	0.288	112.95	0.377	107.13	0.241	101.66	0.582	109.28	0.134
Practical nurse	102.46		91.30		97.20		86.64		106.02		88.14	
Age												
20-30 years	104.57		105.82		95.73		100.87		96.48		101.69	
31-40 years	96.29	0.651	97.60	0.755	102.61	0.198	92.58	0.051	103.04	0.644	89.06	0.327
41-50 years	104.25		104.16		116.45		103.29		110.00		107.27	
51 years and more	106.26		127.55		126.95		143.11		100.64		128.53	

Number of hours worked											
Less than 30 hours/week	102.30	0.001*	96.20	0.056	96.73	0.010*	101.75	0.011*	103.33	0.011*	101.43	0.014*
30-40 hours/week	110.09		101.12		109.51		109.00		108.86		108.06	
40 hours or more/week	59.84		132.68		69.27		68.52		68.16		75.91	
Total professional experience												
Up to 5 years	87.23	0.146	122.43	0.063	94.70	0.198	100.82	0.657	94.90	0.581	107.41	0.153
6–10 years	110.90		91.33		11.39		101.69		102.27		91.20	
11–15 years	104.66		94.48		95.18		98.07		101.86		96.80	
16–20 years	108.77		91.60		94.60		97.75		113.83		94.69	
21 years and more	113.81		103.39		116.88		113.90		110.55		115.56	
Professional experience in the current unit												
Up to 5 years	96.02	0.457	113.57	0.082	96.40	0.519	98.02	0.358	102.19	0.944	99.77	0.241
6–10 years	105.74		86.70		113.11		108.34		104.00		99.97	
11–15 years	118.75		118.85		111.18		125.73		107.60		132.95	
16–20 years	109.08		90.67		113.52		96.23		112.58		96.42	
21 years and more	111.54		96.53		104.44		108.46		100.86		107.91	
Number of overtime hours												
None	76.46	0.001*	124.69	0.000*	70.96	0.011*	87.48	0.264	99.92	0.038*	97.88	0.859
Less than 12 hours	117.43		86.23		110.74		102.80		112.59		103.58	
More than 12 hours	89.69		124.97		102.85		110.33		89.53		105.35	
Intention to leave the position												
Yes, in the next six months	80.80	0.458	140.00	0.114	87.95	0.555	9.40	0.192	124.90	0.503	101.25	0.325
Yes, in the next year	106.43		95.24		97.45		86.88		102.17		97.55	
No intention to leave	104.35		102.75		105.48		107.11		102.45		104.67	
Perceived staff adequacy												
0 % of the time	100.14	0.067	115.40	0.029*	99.77	0.110	101.63	0.471	110.70	0.114	103.05	0.052
25 % of the time	109.28		96.12		109.01		106.64		104.53		106.08	
50 % of the time	65.77		142.00		71.23		91.05		66.41		92.00	
75 % of the time	35.00		85.00		32.50		27.50		50.50		8.50	
100 % of the time	-		-		-		-		-		-	

* p< 0.005; **The Kruskal-Wallis test was used in data analysis.

Based on the correlation analysis, several variables were weak to moderately correlated with teamwork level (Table 4). Nurses who reported higher job satisfaction in the current workplace reported better the subscales of Trust (r=0.244) and Team orientation (r=0.224). Additionally, nurses who reported greater teamwork satisfaction also achieved a better score on the overall NTS score (r=0.174) but also the following subscales: Trust (r=0.192), Shared mental models (r=0.150), and Team leader (r=0.137). Furthermore, nurses who subjectively evaluated quality care better also reported a higher score on the Trust subscale (r=0.173). Similarly, nurses who better evaluated patient safety also achieved a better score in the overall NTS score (r=0.263) and the following subscales: Team orientation (r=0.139), Shared mental models (r=0.255), and Team leader (r=0.179). In addition to the results mentioned above, fewer patients in the last shift were associated with a higher level of teamwork on the following subscales: Trust (r=-0.268), Team orientation (r=-0.342), and Team leader (r=-0.160). Similarly, fewer admitted and discharged patients in the last shift were correlated with a higher level of teamwork on a subscale of Team orientation (r=-0.232, r=-0.218, respectively).

Table 4. Associations between selected variables and teamwork

Variables	Spearman correlation analysis (r)					
	Trust	**Team orientation**	**Backup**	**Shared mental models**	**Team leader**	**Overall NTS score**
Job satisfaction in the current workplace	0.244**	0.224*	-0.094	-0.045	-0.112	-0.041
Overall job satisfaction	-0.011	-0.115	0.018	-0.014	-0.053	-0.016
Satisfaction with teamwork	0.192**	-0.007	-0.059	0.150*	0.137*	0.174*
Subjective evaluation of care quality	0.173*	-0.013	0.130	0.119	0.114	0.122
Subjective evaluation of patient safety	0.107	0.139*	0.039	0.255**	0.179**	0.263**
Number of patients in the last shift	-0.268**	-0.342**	0.092	0.026	-0.160*	-0.013
Number of admitted patients	0.055	-0.232**	0.090	-0.045	-0.057	-0.120
Number of discharged patients	0.127	-0.218**	0.083	-0.011	0.109	-0.020

* $p < 0.005$; ** $p < 0.001$

Discussion

The objective of our study was to determine the level of teamwork and the factors that influence the teamwork level in selected hospitals in the Slovak Republic.

In our study, the level of teamwork was assessed through the overall score of the NTS tool and its individual subscales. The overall score reached a value of 3.74 (SD = 0.64) out of a total of 5, indicating a prevalence of ideal teamwork less than 75% of the time in the last shift of work. Similar results have been reported in several studies conducted in Australia (13), the United States (14), and Turkey (15). In our study, Shared mental models were the highest-rated subscale, achieving even higher but comparable scores to other studies (13,15,16). This fact reflects well-established processes for patient information exchange, including patient handovers, as well as positive relationships within the nursing team. On the contrary, the Team orientation subscale achieved the lowest score in our study, indicating less effective conflict resolution, provision and acceptance of feedback, and prioritization of personal goals over team goals. This is consistent with the results of American (16) and Turkish studies (15).

Statistically significant differences were also identified in the teamwork level based on unit type, education, number of hours worked, number of overtime hours, and perceived staff adequacy. Nurses and practical nurses working in internal medicine departments rated the Trust and Teamwork leader subscales the highest, while nurses working in intensive care units rated the Team orientation and Shared mental model subscales the highest. Our results indicate that different work settings have their specificity and demands for teamwork, which can influence nurses' satisfaction levels and their ability to work effectively (14). Ervin et al. (17) emphasize the complex and dynamic nature of care in intensive care units, involving multiple healthcare professionals with different roles and responsibilities who collaborate in the treatment of critically ill patients. They state that effective teamwork is essential to provide safe and high-quality care in this environment. They identify several key factors that contribute to effective teamwork, including communication, leadership, situation awareness, and mutual respect. Teamwork has also been addressed by Ramadanov et al. (18), highlighting the importance of effective teamwork in the context of clear communication, mutual respect, and collaboration between members of the healthcare team.

In our study, we also identified differences in the assessment of teamwork based on education. Nurses with a degree in nursing felt complete trust among team members, while nurses with a master's or

doctorate degree in nursing rated this subscale the lowest. We assume that this is due to nurses with university education being aware of the risks of ineffective teamwork, including the reasons that jeopardize it, such as the phenomenon of unfinished nursing care, as these topics are included in the nursing curriculum. This problem was addressed in the study by Nobahar et al. (19), which examined the relationship between unfinished nursing care and teamwork among nurses. The results indicate that incomplete nursing care is directly related to teamwork, and improving teamwork reduces the likelihood of incomplete nursing care. The importance of education in relation to team functioning is also emphasized by Canadian authors (20), who consider it necessary to enhance teamwork competencies by incorporating them into the education process and creating training for practicing nurses, highlighting the benefits of simulation-based training. Similar results are demonstrated in the study by Kakeman et al. (21), who found that nurses who underwent teamwork training courses had a more favorable attitude toward interprofessional collaboration. Education and professional preparation can positively influence the perception of teamwork, which is crucial to providing quality patient care.

Statistically significant differences in the teamwork level were also identified based on the number of hours worked per week. Nurses who worked 30 to 40 hours a week indicated that trust, support, shared mental models and team leadership were the most important to them within the team. This could be explained by the fact that an optimal number of hours worked per week can have a positive impact on teamwork. The standard number of hours worked in hospitals usually corresponds to the standard working hours fund. This claim is supported by several studies (7,22,23). Nurses' working hours (more than 60 hours per week) had a negative impact on patient safety culture assessment (23). Specifically, nurses who worked longer hours reported lower scores on various dimensions, including teamwork. This is also related to another identified factor: the overtime hours in the last month. Nurses who worked 1 to 12 overtime hours in the last month considered team trust, support, and team leadership to be important components of effective teamwork. Nurses who had more than 12 overtime hours positively evaluated only team orientation. This result could suggest that too many overtime hours could negatively affect teamwork. Therefore, it is crucial for leaders to ensure balanced workloads (23,24). Another identified factor was the perceived adequacy of the department's staff. Team orientation was best rated by nurses who perceived sufficient staff availability 50% of the time during their last shift. In the study by Kalánková et al. (24), teamwork was best rated by nurses who perceived sufficient staff availability 75% of the time during their last shift. Similar results are evidenced in other international studies (22,25). Results related to the relationship between perceived staff adequacy and teamwork level can help nurse leaders plan departmental staffing, implement an effective skill mix, and improve teamwork (13,26).

As additional factors, we identified those related to satisfaction, specifically satisfaction within the current department, overall job satisfaction, and satisfaction with teamwork. Nurses who are satisfied with their jobs feel that their work is appreciated and supported, which can lead to motivation and engagement with their work. Nurses who were very satisfied with their department rated the Trust subscale as the highest. This implies that satisfaction with one's current position impacts team trust and orientation (2). Regarding overall job satisfaction, nurses who were very satisfied identified team leadership as the most important component of teamwork. One possible explanation could be that effective team leadership, with an appropriate leadership style adopted, leads to employee satisfaction as the team functions effectively (27).

In the context of satisfaction with teamwork within the department, we found that nurses who were very satisfied with teamwork in their current department considered trust to be the most important factor for the proper functioning of the team. Our results are also supported by the study by Bragadóttir et al. (22). Furthermore, Al Sabei et al. (28) focused

on exploring the relationship between teamwork, job satisfaction, burnout syndrome, and nurses' intention to leave their jobs. The results showed that a higher level of interprofessional teamwork among nurses was associated with greater job satisfaction, lower burnout, and less intention to leave. Therefore, it can be concluded that job satisfaction and teamwork satisfaction also influence the assessment of teamwork within the workplace.

Statistically significant differences were also identified in the teamwork level based on subjective patient safety evaluation. Nurses who perceived patient safety as high considered elements that support teamwork, such as team orientation, shared mental models, and team leadership, to be the most important. Our results are supported by several international studies (13,22-26). The study by Al-Surimi et al. (29) aimed to examine the influence of patient safety culture on nurses' job satisfaction and their intention to leave their current positions. The results showed that a positive patient safety culture was significantly associated with higher job satisfaction and a lower intention to leave among nurses. Specifically, nurses who perceived a higher patient safety culture were more satisfied with their job and less likely to consider leaving their organization. The study also found that certain dimensions of patient safety culture, including teamwork within the department, had a stronger impact on job satisfaction and intention to leave than others.

The study has several limitations. The first limitation is the use of self-assessment tools, which can lead to the phenomenon of social desirability bias. Another limitation is the conduct of the study within the specific context, the inclusion of only three selected hospitals, and a relatively small sample size. The selection of the variables might limit the study; for example, job satisfaction, quality care, or patient safety perception was measured using the single-item measurements, and some variables related to teamwork, such as organization of the unit, the severity of health status of nurses, and others were not considered in this study.

Conclusion

Effective teamwork is crucial in healthcare care, directly impacting patient safety and quality of care provided. Our study, carried out in selected district hospitals in the Slovak Republic, aimed to evaluate the level of teamwork and identify its associated factors.

The results offer important perspectives on the elements that impact teamwork between nursing teams, including factors such as unit type, educational background, working hours, and perceptions of staff adequacy. This information lays the groundwork for specific interventions and training initiatives designed to strengthen teamwork, with the ultimate goal of enhancing the quality and safety of patient care. Effectively addressing these factors and cultivating a culture characterized by open communication, trust, and shared objectives will be crucial in establishing an environment where optimal teamwork becomes standard rather than an occasional event.

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