Assessment the Level of Group Cohesion as Perceived by Nurses in Governmental Hospitals

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Abstract

Background: *Group cohesion in healthcare is crucial for improving health system quality, demonstrating unity, support, harmony, and teamwork among nursing team members. It demonstrates the emotional ties, shared values, and mutual support that facilitate effective functioning and a sense of belonging among members, which contributing to a positive workplace atmosphere, improving patient outcomes and healthcare system efficiency. Fostering this cohesion requires intentional efforts from leadership and team members, focusing on building relationships, open communication, and shared values.* ***Objective:*** *to assess the level of group cohesion among nurses in governmental hospital.* ***Settings:*** *The study was carried out in two governmental hospitals: Damanhur Fever Hospital and Damanhur Chest Hospital which were affiliated to the Ministry of Health and Population at Al Behera Governorate.* ***Subjects:*** *All nursing staff (n =250) were assigned to the previously mentioned setting, either professional nurses (n =68) or technical nurses (n =182).* ***Tools:*** *one tool was used in this study; Group identification scale.* ***Results:*** *The study showed that (66.78%) of nurses were perceived high level of group cohesion.* ***Conclusion:*** *The research highlights the significant perception of high level of group cohesion among nurses in healthcare settings.* ***Recommendations:*** *Hospital manager can enhance group cohesion through improves the interpersonal Interactions amongst nurses.*

Keywords:
Group Cohesion, Nurses, Governmental Hospitals.

Introduction

Group cohesion in healthcare settings, it is essential for building a supportive workplace atmosphere, improving communication, and encouraging productive teamwork (Maman et al., 2020). Strong group cohesion helps team members collaborate toward shared objectives and support one another in providing high-quality treatment, which improves job satisfaction, lowers burnout, and improves patient outcomes (Adetunji et al., 2023). Grossman et al., (2022), defined group cohesion as the bonds that hold a group together, characterized by the degree of attraction among group members, their commitment to the group's goals, and the level of cooperation and collaboration within the group.

Reschke et al., (2021), defined nursing group cohesion as the degree of unity, collaboration, and mutual support among nurses within a healthcare team or unit. It involves strong interpersonal relationships, shared goals related to patient care, effective communication, and a supportive work environment. High levels of group cohesion in nursing can lead to improved teamwork, enhanced job satisfaction, reduced burnout, and ultimately better patient outcomes (McLaren et al., 2020). Cohesion is essential for fostering a culture of safety and quality in healthcare settings (Reschke et al., 2021).

According to Henry et al., (1999). Group cohesion is consists of three dimensions: behavioral, cognitive, and affective. Behavioral cohesion involves observable actions and interactions among group members, enhancing teamwork and performance. Cognitive cohesion involves shared beliefs, goals, and perceptions, strengthening bonds and facilitating effective decision-making and problem-solving within a group. The affective dimension refers to the emotional bonds within a group, fostering trust, empathy, and respect, which in turn boosts motivation and satisfaction. Together, these dimensions create a comprehensive framework for group cohesion (Forsyth, 2021).

Nursing group cohesion significantly impacts the healthcare environment, performance, staff dynamics, organizational culture, and patient care. Effective communication, collaboration, and teamwork enable tailored, patient-centered care. Strong collaboration leads to better patient outcomes, satisfaction ratings, and higher-quality care. Mutual trust and support among nurses ensure safety hazards and effective care (Cohen et al., 2021).In addition to; cohesive nursing teams in healthcare settings improve resource use and organizational culture (Paunova & LiYing, 2023).

Sung-Heui et al., (2023), discovered that team cohesion played a crucial role in preserving a stable workforce by partially mediating the association between job satisfaction and turnover. Also, Dinara et al., (2024), reported that cohesion within the nursing staff is greatly improved by effective communication, and this is correlated with job satisfaction

In summary Nurses' perceptions of group cohesion in government hospitals provide important insights into nursing team dynamics and how they affect job performance and the quality of patient care(McLaren et al., 2020). In addition to, enhancing workplace dynamics, informing policy, and contributing to the broader field of nursing research (Adetunji et al., 2023).

Aims of the Study

The study aims to assess the level of group cohesion among nurses in governmental hospitals.

Research question

What is the level of group cohesion among nurse's in governmental hospitals?

Materials and Method

Materials

Design: Descriptive cross sectional research design was used to accomplish this study.

Settings: This study was carried out at two governmental hospitals ; Damanhur Fever Hospital and Damanhur Chest Hospital which are affiliated to the Ministry of Health and Population(MOHP) at El Behera Governorate as well as they are specialized for caring patients with infectious disease, and both hospitals seeking the application for GAHAR accreditation. Furthermore both hospitals used ISBAR tool.

a. Damanhur Fever Hospital, with bed capacity 103, classified as 37 beds in ICUs and 66 beds for inpatient department.

b. Damanhur Chest Hospital, with bed capacity 85, grouped as 35 bed in ICUs and 50 beds are available in the inpatient department.

Subjects: Out of 360 nursing staff members, 250 only were assigned to the previously mentioned setting, either professional nurses (n =68) or technical nurses (n =182). The inclusion criteria for nursing staff; who were responsible for direct and indirect activities for patient and had no administrative responsibilities, were willing to participate in the study, had experience not less than 6 months in the hospital to be familiar with the hospital system and were available at data collection time.

Tools:

Tool one: Group identification scale.

It was developed by Henry et al., (1999) and validated by wang et al., (2022), it was adapted by the researcher after takes permission from the author. It used to assess group cohesion perception among nurses. It consist of three dimensions (N=12 items) include; affective, behavioral, and cognitive. Four items for each dimension. The questionnaire applied the five-point Likert scale with corresponding verbal interpretations: 1 for strongly disagree, and 5 for strongly agree.

The total score for summing up the 12-item score and the higher score forecasted higher group cohesion. The overall score level ranging from 12 to 60. A score from 12 to >28 indicate "low group cohesion level ". A score from 28 to >44 indicate "Moderate group cohesion level ". A score from 44 to 60 indicate "High group cohesion level. The reliability was used cronbach's α coefficient was 0.92(wang, et al, 2022). The researcher use the mean percent score to determine the accepting score to the each dimension of the study tool by computing the mean score percent as follows:

Low mean score percentage < 33.33.

Moderate mean score percentage =33.33 < 66.66.

High mean score percentage > 66.66.

Method

Translation, validity, and reliability

Initially, a comprehensive translation of tool was undertaken to ensure their compatibility with the Arabic language and alignment with Egyptian culture, as well as their appropriateness for various nurses' educational levels. Subsequently, a panel of five academic experts rigorously assessed the content validity and linguistic fluency of the translated tool. The experts were asked individually to assess the instrument's qualities in terms of item relevancy, comprehensiveness, and comprehension. In order to ensure accuracy and reduce potential threats to the study's validity, a few items were adjusted for greater clarity before being back-translated into English by linguists. Based on their agreement rating, the resulting content validity index (CVI) for the tools was

(0.958) which describe that the study tool is valid.

A pilot study involving 25 nurses was carried out to assess the tools' clarity and applicability as well as to determine how long it would take them to complete the study questionnaires. Additionally, the internal reliability of the study tools was evaluated using Cronbach's alpha correlation coefficient. The findings demonstrated the reliability of the instruments, with correlational coefficients for the overall group cohesion= 0.663, while the statistical significance level was $p \leq 0.05$.

Data collection

The administrative authority in the designated setting gave written consent for the required data collection. The researchers first met with the nurse managers of the units to obtain a sampling list of all staff members with their years of experience and obtain their consent to interview the nurses in accordance with their schedules and break times. The nurses who consented to take part in the study were then individually given the questionnaires by the researchers after being fully briefed at the agreed-upon time with the required instructions. Between the 20th of January to the 22nd of March 2024, data were gathered from nurses after gaining their consent via the questionnaires.

Ethical considerations

The study received approval from the Research Ethics Committee of the Faculty of Nursing, Alexandria University (No of IRB:00013620 (9/19/2025) and serial number:AU-20-8-87. All procedures were conducted in accordance with ethical guidelines for human research, adhering to applicable regulations. Additionally, approval to collect data was secured from the hospital's managers. Participants provided written informed consent after a comprehensive explanation of the study's objectives, potential risks and benefits, and their voluntary right to withdraw. The researchers prioritized data privacy, confidentiality, and participant anonymity.

Data analysis

The data collected was revised, coded, and fed electronically to the statistical software Amos SPSS version 26. Quantitative data were tested for normality using the Kolmogorov-Smirnova test and Shapiro-Wilk. All statistical analysis was done using two-tailed tests and an alpha error of 0.05. A P-value less than or equal to 0.05 was statistically significant. The descriptive and inferential statistical analysis for all study variables was carried out. To evaluate the internal reliability of the study's tools, Cronbach's alpha correlation coefficient was used. Demo- graphic and professional traits were described using frequency and percentages. To quantify the variables under research, the arithmetic mean, and standard deviation (SD) were utilized as measures of central tendency and dispersion, respectively. To investigate variations in perceived values and a few demographic factors, an independent t-test and one-way analysis of variance (ANOVA) were computed. The nature of the association between the variables was analyzed using the Pearson correlation coefficient (r).

Results

Table 1 shows that the majority of studied nurses were female (85.2%). Regarding their age 46.4% of nurses were in the age group from 25 ≤ 30 years old, while 1.2% of them more than 41 years with mean ±SD = 28.77±4.54. According to their marital status three quartile (77.2%) were married and only one fifth of them (20.4%) were single. The educational qualification of nurses as follow, more than half of studied nurses had Technical Nursing Institute Diploma (59.2%), while only 32.8% of them held Bachelor degree in nursing science.

In relation to nursing experience, more than on third (43.2%) had less than 5 years, whereas, only 0.4% were more than 30 years

with mean ±SD 7.56+4.70. Furthermore, the majority of the studied nurses working in Damanhur Fever Hospital (56%).

Table 2 shows (66.78%) of nurses perceived overall group cohesion with mean ± SD 40.07± 6.33. Although behavioral dimension perceived high level (68.2%),cognitive and affective dimensions were perceived moderate level (65%, 66.6%) respectively.

Table 3 revealed that, statistically significant difference between overall group cohesion and each of nurse's age, marital status and hospital name (p=0.01, 0.05, 0.00) respectively. Regarding sex the table illustrates that the higher mean score percent of overall group cohesion was male nurses (43.54±6.43). Concerning age, the higher mean score percent of overall group cohesion where in age average less than 25 years old (42. 12±5.74). In addition to years of experience in nursing the higher mean score percent of overall group cohesion were found among nurses who had experience in nursing more than 30 years (42.00±0).

In relation to marital status, the higher mean score percent of overall group cohesion were found among divorced nurses (44.75±3.94). In addition to level of education, the higher mean score percent of overall group cohesion who had bachelor degree in nursing science (40.50±6.79). Also, Damanhur chest hospital was perceived the higher mean score percent more than Damanhur fever hospital (41.27±6.54).

Discussion

The present study findings show that the studied nurses perceived high level of group cohesion and all its related dimensions except cognitive dimensions they perceived moderately. In the same line Miller, et al. (2020) reported that nurses had higher level of group cohesion linked to improved quality of care. Also, Spector et al. (2016) showed that people with high group cohesion typically exhibit greater levels of cooperation, vigor, concentration, communication, and reduced burnout in their day-to-day work, which raises the standard of nursing handover.

This might result from, nurses work collaboratively to provide high quality of care to patients, which fosters a strong sense of purpose and commitment to patient outcomes, presence of policy and guidelines that support nursing group cohesion, regular and open communication is essential among nurse for effective patient care, which helps build trust and understanding among team members. Implement team-based training and orientation programs that emphasize collaboration and mutual support, reinforcing group cohesion from the start and strong leadership that encourages teamwork and values input from all team members can foster a cohesive environment.

Similarly, Cohen, et al. (2021) found that individuals reported a stronger sense of group cohesion over time, but these measures decreased at the one-month follow-up period, this may be attributable to decay, team attrition, and institutional turnover. In addition to, showed highest cohesion among nurses and patient safety correlated with adverse event. Bontrager et al. (2016), found high levels of group cohesion among newly licensed registered nurses, which positively influenced job satisfaction and intent to stay in their first job.

On the contrary of the finding of the present study, Zeng, et al. (2022) reported that nurses in Yunnan Province perceived moderate degree of group cohesion. Also, Wang, et al. (2022) found that the psychiatric nurses perceived group cohesion moderatly, the mean item scores for group cohesion was (5.75 ± 0.94) indicating moderate group cohesion. Additionally, Paunova & Li-Ying (2023) found that nurses had moderate group cohesion. In addition, Diamantopoulo et al. (2022) revealed that nurses' team climate was typically described as moderate, indicating a moderate level of group cohesion among the ICU nurses. Furthermore, Ergun, et al. (2017). It has been reported that there is

a degree of professional engagement within the ICU team when moderate group cohesion among the nurses is seen as partial cooperation, where nurses help in challenging clinical situations.

In relation to dimensions of group cohesion, the results of this study showed that the behavioral dimension among nurses had the highest mean score for group cohesion, followed by the cognitive and affective dimensions. This result might be related to; Nurses often develop strong bonds as they navigate the challenges together, nurses typically have a common objective, providing the best possible care for critically ill patients this shared purpose fosters collaboration and unity and supportive leadership can promote a culture of teamwork and support, encouraging nurses to work cohesively and valuing each member's contributions.

Conversely, the results of this study showed that the cognitive dimension had the lowest mean score. This could be because of nurses often focus on immediate tasks rather than on group dynamics or cognitive processes. In addition to, in many settings, there are clearly defined roles and hierarchies. This can sometimes lead to a lack of shared cognitive understanding or collaboration in decision-making, as nurses may feel less empowered to contribute their thoughts. Consider this group to be a part of who they are, and they perceive themselves differently from other group members.

This result was supported by Mahvar et al., (2022) revealed that nurses in critical units exhibit higher group cohesion in behavioral dimensions compared to general unit nurses in Korea,as per the study. This study was inconsistent with the findings of Sidorenkov et al. (2020), who stated that the affective dimension was the greatest and the cognitive dimension was t he second. Also, Bontrager et al., (2016). Revealed that nurses exhibit a high affective dimension, and this affective dimension is significant. Furthermore, Earle (2022) found that, the nurses show high cognitive dimension in group cohesion and cognitive dimension is significant among ICU nurse groups.

Also, this study revealed that, statistically significant difference between overall group cohesion and each of nurse's age, marital status and hospital except sex, level of education and years of experience in nursing. This might be related to the fact that nurses frequently demand a high degree of cooperation and teamwork, which may lessen the negative effects of individual variations. Clinical skills and decision-making abilities are frequently stronger among more experienced nurses, which can improve confidence and group performance. This makes it possible for nurses to work together more successfully despite disparities in experience or demography. Moreover, nurses in specialized fields like the ICU usually have similar training and experience levels, which may reduce cohesiveness disparities based on years of schooling or experience.

This study go in parallel with Akbarianet al, (2022); Ahmed et al, (2022). Found that statistically significant differences in overall group cohesion based on nurse's age, marital status, and hospital, excluding sex, education level and nursing experience. On the other hand Daniels et al,(2016) did not find a statistically significant difference between overall group cohesion and nurse's age, marital status, or hospital, except for sex, education level and nursing experience.

Concerning age, the higher mean score percent of overall group cohesion where the average age is less than 25 years old may be attributed to the fact that younger nurses can bring enthusiasm and new ideas that enhance these aspects of the job. They may have recently completed training programs that emphasize cooperation and effective communication, which could help them perform better group cohesion.

Similarly, Zou et al., (2022). It has been reported that younger nurses participate more actively, which produces results of a higher caliber. According to a study, among

psychiatric nurses, work happiness are major predictors of group cohesion. Furthermore, Aslan (2017). It was discovered that younger employees in the banking industry of Bingol City have higher mean scores than older employees in terms of group cohesion. These results were in conflict with those of Mello et al. (2023), who found that senior nursing students outperformed their younger counterparts in terms of knowledge.

In addition to years of experience in nursing the higher mean score percent were found among nurses who had experience in nursing more than 30 years. This could be explained by the fact that experienced nurses are more likely to possess a strong clinical background and exude confidence, both of which can enhance the quality of information transferred during handovers. Additionally, senior nurses sometimes serve as mentors, fostering a collaborative environment that improves group cohesion.

This study supports the findings of Amin et al. (2024) by showing that nurses with more experience had high level of group cohesion, which reduce errors and increase patient safety. This finding was at odds with that of Wang et al. (2022), who found that less experienced psychiatric nurses had high mean scores for group cohesion.

Regarding marital status, divorced nurses had higher mean scores for overall group cohesion. This could be because divorced nurses have developed resilience and adaptability skills, which enhance their ability to handle stress and work effectively in teams, ultimately leading to higher job satisfaction and group cohesion. People who have recently divorced might choose to focus more on their employment, which could improve their relationships with coworkers and overall job happiness.

This study is consistent with Asmawati & Idealistiana, (2024). Who discovered that divorced nurses may have better communication skills, which translates into higher level of group cohesion and improves patient satisfaction and safety. On the other side, Li et al. (2014) discovered that divorced nurses had worse mean scores in group cohesion, suggesting a possible influence on their outcomes connected to their work.

In addition to level of education, nurses with bachelor degree in nursing science had the higher mean score of overall group cohesion this may be attributed, the more extensive training these nurses typically receive. This training equips them with the skills necessary for critical thinking, effective communication, and teamwork—all of which can improve nurse's group cohesion. Professionalism and Confidence: Proactive measures to foster group cohesion and boost job satisfaction are typically associated with higher levels of academic achievement and better confidence in professional roles. This investigation supports the findings of Zou et al. (2022). A study concentrating on psychiatric nurses found that nurses with a bachelor's degree had higher level of group cohesion. However, Choi etal., (2022). Did not particularly address the mean percent score of group cohesion among nurses according to their educational background .

Additionally, Damanhur Chest Hospital was thought to have a higher mean score percent compared to Damanhur Fever Hospital. This could be because Damanhur Chest hospitals concentrate only on respiratory conditions, which could enable staff members to have more specialized training and experience, improving patient outcomes. This study supports Heming et al.'s (2023) findings that, in contrast to other hospitals' circumstances, a hospital's work environment may promote greater job satisfaction through supportive management and sufficient resources. However, Paddock et al. (2015) discovered that hospitals categorized in various performance tiers did not substantially differ in mean scores, suggesting that there was no appreciable performance difference across the examined hospitals.

Conclusion

Based upon the findings of the current study, highlights the importance of nurses group cohesion in improving patient care, workplace satisfaction, and teamwork. It suggests that better communication, higher morale, and productive teamwork are correlated with higher perceived group cohesion. Addressing these factors can enhance healthcare delivery and nurse satisfaction.

Recommendations

In line with the findings of the study, the following recommendations are made:

- Hospital administrators and nursing manager have to improve the interpersonal interactions amongst nurses, regularly implement team-building activities.
- Nurses should improve their relationships with coworkers; actively take part in social gatherings and team-building exercises. Among team members, rapport-building can improve communication and trust among

Author contributions

Marwa Mohamed Ali Alsaka, B.Sc. in Nursing, Nursing Specialist: Played a significant role in data collection, analysis, and interpretation. Assisted in drafting and revising the dissertation and contributed to methodology and statistical analysis.

Heba Farouk Mohammed, Lecturer: Provided expert interpretation and critical revision of the data, as well as insights into the findings' therapeutic relevance.

Nancy Sabry Hassan, Assistant professor: Oversaw the investigation and offered knowledgeable direction all through the study. Participated in the conceptualization process. Study design and the dissertation's final review.

Table (1): Distribution of the studied nurses according to their personal-professional and work related characteristics:

Items		Frequency (N=250)	%
Sex	• Male	37	14.8%
	• Female	213	85.2%
Age	• Less than 25	65	26.0%
	• 25≤30	116	46.4%
	• 31≤41	66	26.4%
	• More than 41	3	1.2%
Mean ±SD = 28.77±4.54			
Marital Status	• Single	51	20.4%
	• Married	193	77.2%
	• Divorced	4	1.6%
	• Widow	2	0.8%
Level of education	• Secondary Nursing School Diploma	15	6.0%
	• Technical Nursing Institute Diploma	148	59.2%
	• Bachelor degree of Nursing Science	82	32.8%
	• Others	5	2%
Years of experience in nursing	• Less than 5 years	108	43.2%
	• 5≤10	92	36.8%
	• 11≤20	45	18.0%
	• 21≤30	4	1.6%
	• More than 30	1	0.4%
Mean ±SD = 7.56+4.70			
Hospital Name	• Damanhur Fever Hospital	140	56.0%
	• Damanhur Chest Hospital	110	44.0%

Table (2): Mean and SD of group cohesion among nursing staff and its related dimensions.

Dimensions of group cohesion	Levels	Frequency (N=250)	%	Mean ± SD	Mean percent Score
Behavioral	**Low**	9	3.6%	13.64 ± 2.48	68.2%
	Moderate	169	67.6%		
	High	72	28.8%		
Cognitive	**Low**	12	4.8%	13.10 ± 2.65	65%
	Moderate	178	71.2%		
	High	60	24.0%		
Affective	**Low**	7	2.8%	13.32 ± 2.22	66.6%
	Moderate	182	72.8%		
	High	61	24.4%		
Overall group cohesion	**Low**	3	1.2%	40.07± 6.33	66.78%
	Moderate	190	76.0%		
	High	57	22.8%		

Low mean score percentage < 33.33. Moderate mean score percentage =33.33 <66.66. High mean score percentage ≥ 66.66.

Table (3): Relationship between group cohesion and personal professional work related characteristics of nursing staff:

Socio-demographic data	Overall group cohesion
	Mean ± SD.
Sex	
▪ Male	43.54±6.43
▪ Female	39.46±6.13
Test of sig.(p)	**T=0.29(0.74)**
Age	
▪ Less than 25 years	42.12±5.74
▪ 25 ≤ 30 years	9.58±5.97
▪ 31 ≤ 41 years	39.07±7.19
▪ More than 41 years	37.00±4.69
Test of sig.(p)	**F=3.44(0.01)****
Marital status	
▪ Married	39.96±7.80
▪ Single	39.99±5.93
▪ Divorced	44.75±3.94
▪ Widow	41.00±7.07
Test of sig.(p)	**F=1.56(0.05)***
Level of education.	
▪ Secondary Nursing School Diploma	39.53±5.39
▪ Technical Nursing Institute Diploma	39.89±6.18
▪ Bachelor degree in Nursing Science	40.50±6.79
Test of sig.(p)	**F=.75(0.52)**
Years of experience in nursing	
▪ Less than 5 years	41.33±6.10
▪ 5≤10	39.50±6.02
▪ 11≤20	38.42±7.10
▪ 21≤30	37.25±6.39
▪ More than 30	42.00±0
Test of sig.(p)	**F=2.93(0.06)**
Hospital Name	
▪ Damanhur Fever Hospital	39.12±6.02
▪ Damanhur Chest Hospital	41.27±6.54
Test of sig.(p)	**F=7.23(0.00)****

T: Independent Samples Test F: One Way ANOVA * P value significant ≤ (0.05) **if p value ≤ (0.01)

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