

THE CORRELATION OF INFORMAL INTRA-ORGANIZATIONAL COMMUNICATION WITH ORGANIZATIONAL TRUST AND ORGANIZATIONAL COMMUNICATION SATISFACTION AMONG IRANIAN PSYCHIATRIC NURSES

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ABSTRACT

AIM:

This study aimed to determine the correlation of informal intra-organizational communication with organizational trust and organizational communication satisfaction among Iranian psychiatric nurses.

DESIGN:

This cross-sectional descriptive study was conducted from October to November 2020 to analyze and visualize informal intra-organizational communication among nurses.

METHOD:

The current research was conducted on 154 nurses, head nurses, supervisors, and the matron working at Roozbeh Psychiatric Hospital in Tehran, who were selected using a census method. In order to comply with ethical considerations in sampling for social network analysis (SNA) studies, a list was designed including all 168 nurses working at the hospital.

RESULTS:

The majority of nurses reported having informal communication with their colleagues, and a significant proportion (47%) believed that information obtained from this informal communication was sometimes valuable for them. The results revealed that nurses' informal communication network was significantly correlated with organizational trust ($p \leq 0.02$, $X^2 = 7.81$) and communication satisfaction ($p \leq 0.01$, $X^2 = 21.82$).

CONCLUSION:

Informal communication in the nursing workplace should not be overlooked. Given the physical, psychological, and organizational impacts of informal workplace communication on nurses working at hospitals and healthcare centers, nursing managers and policymakers should develop systematic and precise plans to recognize, prevent, and manage this phenomenon.

KEYWORDS

professional communication, informal communication, organizational trust, satisfaction, nurses

INTRODUCTION

In today's world, due to organizational complexities, the subject of communication is of paramount significance so that it can be argued that the first and most important responsibility of any manager is to identify and develop an organizational communication system. Communication is a critical skill for effective organizational management, as it fosters and maintains the relationships necessary for employees to optimally carry out their daily tasks [1, 2].

Nursing communication is established through interactions among nurses while performing professional nursing activities. It is a crucial component of the healthcare quality improvement system and a key criterion for enhancing nurses' competence so that the Nursing and Midwifery Council (NMC) has mandated the development and ability to establish effective communication as an essential standard to enroll for nursing education. Other essential elements include effective intra-group and inter-group communication, teamwork, coordination, and group support [3].

Within organizations, there exists two types of communication networks: Formal and informal. A formal communication network is a planned structure observable on an organizational hierarchy chart, where officials' authorities and the relationships between them and employees are defined by rules and regulations. Conversely, an informal communication network is a form of undefined communication in formal structures, where information is exchanged between two individuals, groups, or organizations without adhering to conventional laws, formalities, processes, or organizational command or job hierarchies. Characteristics such as spontaneity, interactivity, and the rich nature of informal communication have led such communication to play a significant role in creating both positive and negative work environments within organizations [2]. Conversely, undesirable informal communication among nurses can have severe consequences for nurses, the nursing profession, and healthcare organizations, including poor work performance, absenteeism, and rapid job turnover. In such circumstances, nurses often experience a range of physical and psychological symptoms, including mild to severe stress, headaches, eating disorders, and sleep disturbances. Many of them report significant rates of leaving their jobs or the location where they were abused [4-6]. Studies have indicated that nurses who experience poor intragroup interactions are less likely to ask questions or use other support methods for seeking help, leading to an increased likelihood of adverse events in patient care [7]. Statistics reveal that 60-70% of clinical errors are related to unfavorable interactions and communication [8]. Thus, considering the extensive consequences of this dilemma and the crucial role of communication, particularly informal communication, within organizations, this concept, which is somewhat unfamiliar in the nursing profession, should be further explored from various aspects.

Some studies suggest that organizational trust is a key variable that may significantly impact organizational communication [9, 10]. Organizational trust is defined as "employees' trust in the utility and consistency of the organization's members' behaviors and statements when faced with unstable and risky conditions" [11]. Organizations characterized by high levels of trust are often marked by open communication, accountability, productivity, organizational commitment, culture of accommodation, teamwork, high job satisfaction, and involvement in decision-making. Conversely, in organizations with low levels of trust, there is no discipline in work. Low levels of trust lead employees to distort information flow within the organization, fostering suspicion and mistrust among employees and eroding open and honest communication. This, in turn, culminates in poor-quality decision-making. In such organizations, employees are hesitant to voice their ideas and opinions because of fear that their plans and initiatives may fail [12].

In situations where there is a low level of organizational trust among nurses working at a hospital, the quality of interpersonal communication among nurses may also be affected, leading to dissatisfaction with organizational communication among this group. In 1977, Downs and Hazen first introduced the concept of communication satisfaction [13]. Organizational communication satisfaction is defined as "an individual's satisfaction with the information flow and variables related to communication within an organization" [14]. In organizations where employees are satisfied with their communication, they can foster supportive and creative networks by establishing effective communication patterns and mutual trust, culminating in improved organizational outcomes, including collaboration, integration, and alignment

among different departments toward achieving common goals and effective information sharing [13]. Conversely, employee dissatisfaction with intra-organizational communication results in disrupting employee focus, creating incorrect performance of tasks and delays in task completion, and decreasing job satisfaction and organizational commitment [15]. Since organizational communication satisfaction can underlie integration and yield significant outputs, attention to the factors affecting this construct is of particular importance.

Social network analysis (SNA) has been utilized in clinical settings for over two decades to elucidate communication patterns in various healthcare departments. In a systematic review of SNA studies in the field of nursing, Benton et al. (2014) demonstrated the applicability of SNA in analyzing communication networks and patterns, as well as information sharing, among nurses, suggesting its potential to enhance nursing communication. Key concepts in SNA theory comprise nodes, ties, relational power, and centrality. Social networks consist of nodes (including individuals, groups, and larger institutions) and ties (the interest links between two groups). In this theory, relational power can be defined as a linear probability, a combination of time, intensity of emotion, intimacy (mutual trust), and reciprocal services that characterize communication [3]. SNA among nurses working in psychiatric wards is essential due to the unique characteristics of patients hospitalized in these wards and the existence of multiple interpersonal communication.

The existence of effective and correct communication among nurses has constantly been considered a significant influential factor in the success of healthcare service organizations, hospitals, and the nursing profession. It is also a crucial component of a healthcare quality improvement system and a key criterion for enhancing nurses' competence. On the other hand, research findings demonstrate that informal and unfavorable communication among nurses can have detrimental consequences for nurses, the nursing profession, and healthcare organizations. In this context, it seems that a lack of organizational trust and also organizational communication dissatisfaction play a significant role among nurses. Currently, there are no accurate statistics on the prevalence and status of informal communication patterns among Iranian nurses. The current research was conducted to investigate the correlation of informal intra-organizational communication with organizational trust and organizational communication satisfaction among Iranian nurses working in psychiatric wards.

METHODS

STUDY DESIGN

This present cross-sectional descriptive study was conducted from October to November 2020 to analyze and visualize informal intra-organizational communication among nurses.

STUDY PARTICIPANTS

The sample size was calculated using G*Power version 3.1. In order to determine the sample size, a type I error rate of 0.05, a type II error rate of 0.20 (power of 0.80), and 8 variables were considered. In addition, based on previous research and the researcher's expectation, an effect size of $f^2 = 0.10$ (less than medium) was assumed. The final sample size was calculated to be 159. This study was conducted on 154 nurses, head nurses, supervisors, and the matron working at Roozbeh Psychiatric Hospital in Tehran, who were selected using a census method.

Inclusion criteria included holding at least a bachelor's degree in nursing, having a minimum of 6 months of nursing experience in the current ward, and willingness to participate in the research. After obtaining ethical approval from the Joint Ethics Committee of Tehran School of Nursing and Midwifery and Rehabilitation, as well as the complex managers' consent, nurses who met the inclusion criteria entered the study after providing written informed consent.

STUDY PROCESS

Social network data can be collected using various qualitative, quantitative, or mixed methods, from primary or secondary sources. In this study, to ensure ethical considerations in sampling for SNA research, a list of all 168 nurses working at the hospital (nurses, head nurses, supervisors, and matron) was prepared. Each nurse was assigned a unique code

based on their organizational position (nurses were coded as N, and since 145 nurses were working at this hospital, codes from N1 to N145 were generated). The head nurses were coded as HN, and given that 13 head nurses were working at the hospital, codes HN1 to HN13 were generated. Similarly, supervisors were coded as HS with codes from HS1 to HS9 according to the number of supervisors working at the hospital. The matron was also coded as HM. During the interview, the list was placed in front of the participants to identify the names of their colleagues who are in contact with them within the organization. However, instead of directly entering these names into the SNA Questionnaire, unique codes assigned to the individuals were entered into the questionnaires. The SNA Questionnaire was completed through a ten-minute interview conducted by the researcher with the nurses. Additionally, the Organizational Trust Questionnaire and the Organizational Communication Satisfaction Questionnaire were provided to the nurses by the researcher, and after completion, they were returned to the researcher through a self-reporting method. The network sample analyzed in the current research was the "complete network" of employed nurses. In this method, the information regarding the connections of each actor with all other actors must be examined. This approach, by nature, is more of a census of connections among a population of actors rather than a sample. By collecting connections between two or all pairs of a population, complete network data provides a comprehensive picture of the population's communication.

STUDY INSTRUMENTS

The data collection instruments included four questionnaires: 1) A demographic questionnaire (age, gender, marital status, education level, clinical work experience, working ward, work experience in the current ward), 2) the SNA Questionnaire, 3) the Organizational Trust Questionnaire, and 4) the Organizational Communication Satisfaction Questionnaire.

- The Social Network Analysis (SNA) Questionnaire

This questionnaire was developed by Durant and Milen in 2007 to examine and depict informal communication patterns among employees in organizations. The questionnaire consists of 8 questions that analyze the informal organizational communication network. In question 1, participants are asked to list the names of 10 individuals within the organization who are important to them and with whom they communicate, particularly when facing personal or professional challenges, seeking advice or assistance (a minimum of 4 names is required). In question 2, participants should specify the ward or area of work for each individual they have introduced. In question 3, participants must indicate the level of closeness in the hierarchy to each person they have introduced, selecting from one of the three levels: Higher, lower, or equal. In question 4, participants are asked to choose the most significant help they have received from each individual from a list of seven options. In question 5, participants are asked to write a number between 1 and 10 next to each person's name based on the level of their communication with that person (1 denoting the highest communication and 10 denoting the lowest communication). In question 6, participants must select the frequency of information provided to them from among the four options of "never, sometimes, often, or always," and place their chosen option in front of each individual's name. In question 7, participants are asked to rate the informational value provided to them by each individual for completing tasks using the three options: Sometimes valuable, valuable, or very valuable. In question 8, participants must specify the individuals they consulted for decision-making over the past six months. This questionnaire was originally in English and underwent a forward-backward translation process. In the forward translation phase, the original English version of the questionnaire was translated into Persian by two English language experts, following the International Quality of Life Assessment (IQOLA) protocol, after obtaining permission from the original designer (16). To ensure the content validity of the questionnaire, a forward-backward translation method was employed. Subsequently, the questionnaire was presented to 10 faculty members from the School of Nursing and Midwifery, Tehran University of Medical Sciences, for content validity assessment. The test-retest method was employed to assess the reliability of the questionnaire in the present study. To this aim, 10 randomly selected nurses working at Roozbeh Hospital in Tehran completed the questionnaire. After a two-week interval, the same nurses were again asked to complete the questionnaire. Then, the correlation coefficient between the two sets of data was found to be 0.76.

- The Organizational Trust Questionnaire (Ellonen et al.)

This questionnaire, originally developed by Meyer and Davis (1999) and later adapted by Ellonen et al. (2008) with minor modifications (11), consists of 49 items divided into three dimensions: Lateral trust (15 items), hierarchical trust (15 items),

and organizational trust (19 items). This questionnaire is rated on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The minimum possible score is 49, and the maximum is 245. A higher score indicates a higher level of organizational trust. The validity of this questionnaire has been confirmed in previous studies, and its reliability was reported to be 0.96 using Cronbach's alpha (10). In this study, the questionnaire was presented to 10 faculty members from the School of Nursing and Midwifery, Tehran University of Medical Sciences to determine content validity.

In order to assess the reliability of the questionnaire in this study, the test-retest method, as employed in the SNA Questionnaire, was utilized. The correlation coefficient between the two sets of data was found to be 0.81.

- The Organizational Communication Satisfaction Questionnaire

This questionnaire consists of 40 items rated on a 7-point Likert scale ranging from 1 (completely dissatisfied) to 7 (completely satisfied). The minimum possible score for this questionnaire is 40, and the maximum is 280, with higher scores indicating greater organizational communication satisfaction. Scores between 40 and 93 indicate low satisfaction, scores between 93 and 186 denote moderate satisfaction, and scores above 186 show high satisfaction. The reliability and validity of this questionnaire have been established in previous studies, with a Cronbach's alpha of 0.76 reported [4].

STUDY ANALYSIS

Data collected from the SNA Questionnaire were entered into Excel, and subsequently, the resulting edge list was imported into UCINET 6 as a matrix for further analysis. To determine the overall structure of communication patterns, allowing for a comprehensive view of existing relationships, a graph consisting of nodes and connections between nodes, including (degree, betweenness, and closeness), was utilized. Additionally, data from the Organizational Trust Questionnaire and the Organizational Communication Satisfaction Questionnaires were analyzed using SPSS version 21, employing both descriptive and analytical statistics. In this study, descriptive statistical methods, including frequency distribution, mean, and standard deviation, were employed in relation to the research objective. The chi-square test was utilized to examine the correlation of informal intra-organizational communication with organizational trust and organizational communication satisfaction. In this study, an innovative approach was employed to report the results for the variables of organizational trust and communication satisfaction so that the midpoint of the questionnaire was chosen, with scores above the midpoint indicating high levels and scores below the midpoint indicating low levels of organizational trust and organizational communication satisfaction.

RESULTS

The participating nurses' mean age was 34.37 ± 7.75 years, with 60% being female and 40% male. The participants' mean years of experience was 11.24 ± 7.28 years in the nursing profession and 5.45 ± 4.32 years in the current ward. The majority of the nurses (73%) worked rotating shifts and had permanent employment. Other demographic information of the participants is presented in Table 1.

TABLE 1. INDIVIDUAL CHARACTERISTICS OF NURSES PARTICIPATING IN THE RESEARCH

Variables		N (%)
Gender	Male	61 (39.6)
	Female	93 (60.4)
	Total	154 (100)
Marital Status	Single	39 (25.)
	Married	115 (74.7)
	Total	154 (100)
How to enter the profession	with awareness	100 (64.9)
	with interest	32 (20.8)
	other	22 (14.3)
	Total	154 (100)

Employment status	Permanent	73 (47.7)
	Contractual	26 (16.9)
	Temporary	25 (16.2)
	Cooperative	12 (11.7)
	Projective	18 (7.8)
	Total	154 (100)
Interest in the workplace	Yes	146 (94.8)
	No	8(5.2)
	Total	154 (100)
Compulsion to work in the current sector	Yes	21 (13.6)
	No	133 (86.4)
	Total	154 (100)
work shift	In the morning	24 (15.6)
	In the evening	8(5.2)
	In the night	9 (5.8)
	In circulation	113 (73.4)
	Total	154 (100)
Management post	Metron	1 (0.6)
	Supervisor	9 (5.8)
	Head Nurse	13 (8.4)
	Nurse	113 (73.4)
	Total	154 (100)

Most of the nurses in this study reported having informal communication with their peer colleagues, with 47% indicating that the information gained from this informal communication was sometimes valuable to them. The network consisted of 168 nodes and 507 ties, with a mean network degree of 3.02. The component ratio was 0.9. The degree centralization was 0.048, in-centralization was 0.024, out-centralization was 0.036, and density was 0.018. The characteristics of the nurses' informal network are presented in Table 2.

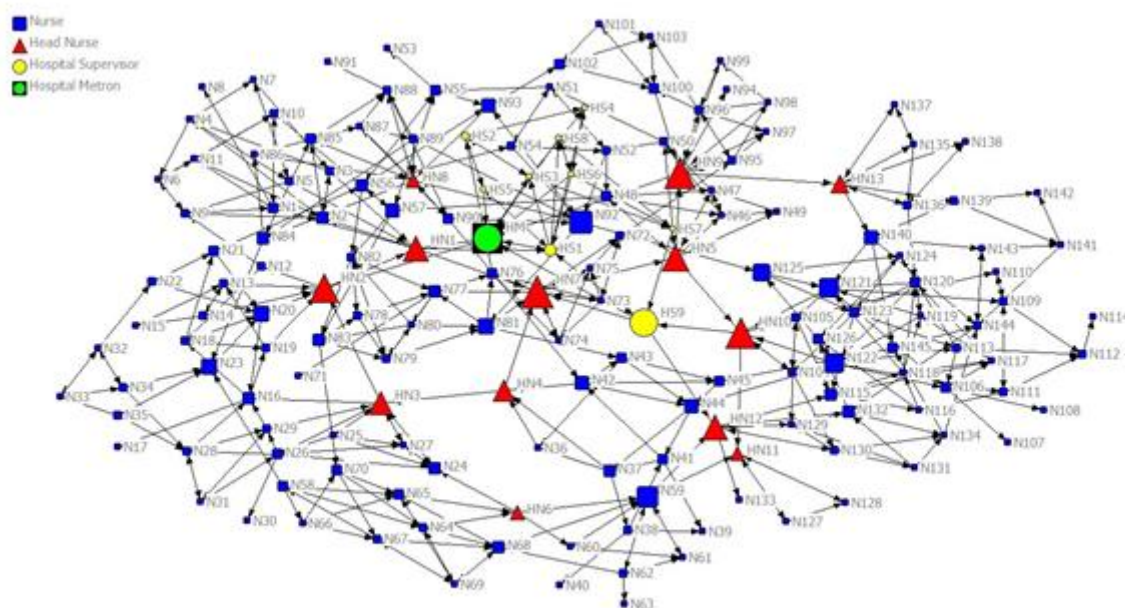
TABLE 2. FREQUENCY DISTRIBUTION AND PERCENTAGE OF CHARACTERISTICS RELATED TO THE NURSES' INFORMAL COMMUNICATION NETWORK IN THE RESEARCH

Please list the primary benefits you are currently receiving from each individual you have introduced.	N (%)
1. Information that helps me solve problems or seize opportunities.	74 (14.6)
2. Access to decision-makers, which allows me to move my plans forward.	36 (7.1)
3. Organizational support that helps me advance my plans.	73 (14.4)
4. Problem-solving interactions that significantly improve my thinking about my work-related problems or opportunities.	86 (17.0)
5. Career counseling or appropriate feedback that helps me be more effective in my work.	134 (26.4)
6. Attracting personal support and strengthening the ability to solve problems and help return to work.	55 (10.8)
7. A sense that the work I do in the workplace is making a positive impact and is important.	49 (9.7)
Total	507 (100)
For each person you have introduced, what is their job position relative to yours?	N (%)
1. Upper	60 (11.8)
2. Equal	396 (78.1)
3. Lower	51 (10.1)
Total	507 (100)

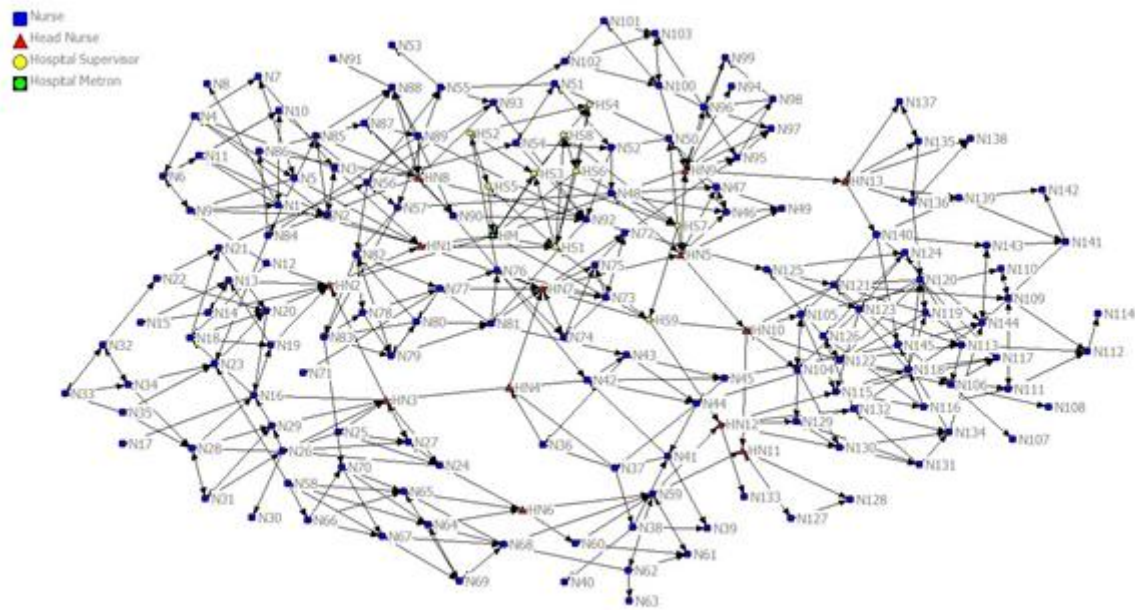
Please indicate the frequency of information provided to you by each individual you have introduced to complete your tasks.	N (%)
1. Never	30 (5.9)
2. Sometimes	242 (47.7)
3. Often	197 (38.9)
4. Always	38 (7.5)
Total	507 (100)
Please indicate the value of the information provided by each individual you have introduced.	N (%)
1. Sometimes valuable	99 (19.5)
2. Valuable	281 (55.5)
3. Very valuable	127 (25.0)
Total	507 (100)

In Graph 1, the characteristics of each network member are represented by color and shape. The blue color and square represent nurses, the red color and triangle represent head nurses, the yellow color and circle represent supervisors, and the green color within a black square represents the hospital's matron. Graph 1 demonstrates that node sizes vary based on the betweenness metric, with larger nodes indicating greater betweenness. Based on Graph 1 and the Ucinet software output, the five individuals with the highest betweenness scores are HN7=7090.1), HN1=6420.21), HN5=6394.38), HS9=4882.75), and HN10=4717.55), respectively. Additionally, Graph 2 demonstrates that the node size varies according to their closeness, with larger nodes indicating greater closeness.

GRAPH 1. SORTING THE NURSES' COMMUNICATION NETWORK BASED ON BETWEENNESS

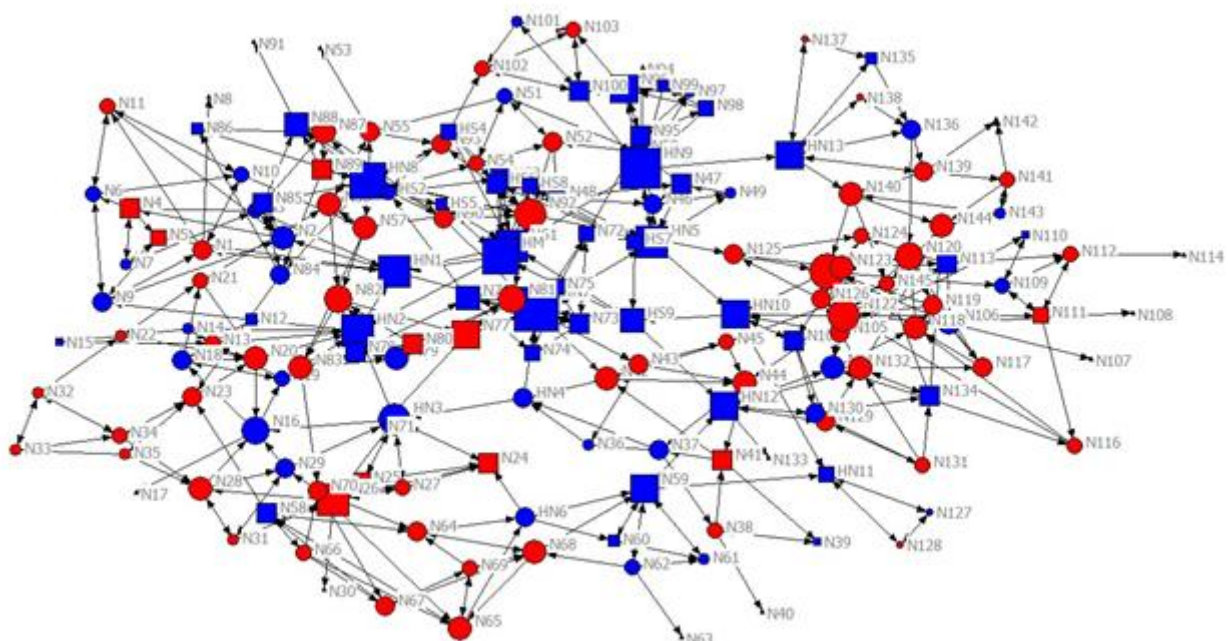


GRAPH 2. SORTING THE NURSES' COMMUNICATION NETWORK BASED ON CLOSENESS

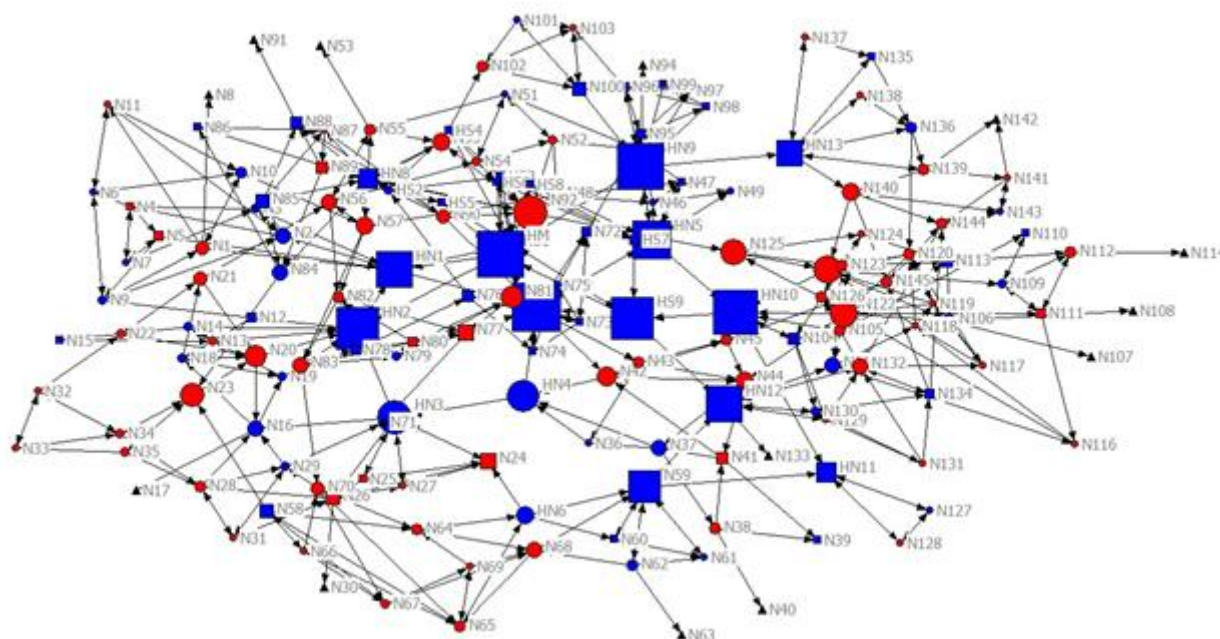


Graph 3 illustrates the nurses' communication network based on organizational trust, communication satisfaction, and the degree of communication. In this graph, organizational trust is categorized into two groups: Low trust (red) and high trust (blue). Communication satisfaction is also divided into two groups: Low satisfaction (circle) and high satisfaction (square). Moreover, the size of each shape represents an individual's degree of communication (the number of incoming and outgoing communication), with larger shapes indicating higher communication. According to Graph 3 and Ucinet output, the five individuals with the highest level of organizational trust were HM=198, N2=193, N59=190, HN8=190, and HS3=189), and those with the highest communication satisfaction were HN7=252, HS1=241, HS3=240, N95=240, and N59=238. Graph 4 also depicts the nurses' communication network based on organizational trust, communication satisfaction, and betweenness. The size of each shape was used to represent the betweenness centrality (the position in the shortest communication paths between other nodes), with larger shapes indicating a more central position in others' communication.

GRAPH 3. NURSES' COMMUNICATION NETWORK BASED ON ORGANIZATIONAL TRUST, ORGANIZATIONAL COMMUNICATION SATISFACTION, AND DEGREE OF COMMUNICATION



GRAPH 4. NURSES' COMMUNICATION NETWORK BASED ON ORGANIZATIONAL TRUST, ORGANIZATIONAL COMMUNICATION SATISFACTION, AND BETWEENNESS



The results of this study finally revealed that nurses' informal communication network was significantly correlated with their organizational trust ($p \leq 0.02$, $X^2 = 7.81$) and communication satisfaction ($p \leq 0.01$, $X^2 = 21.82$).

DISCUSSION

SNA is a valuable tool for mapping and assessing the relational networks within organizations. This simple technique can yield rich insights. This program is used to manage communication, aiming to improve the relational bonds within a group or a communication network of employees in an organization. Therefore, this study intended to determine the correlation of informal intra-organizational communication with organizational trust and organizational communication satisfaction among psychiatric nurses.

The communication network of nurses working at the psychiatric hospital consists of 168 nurse nodes and 507 edges/ties between nurses. Given the nurses' low network density (density = 0.018) and that only 0.018 of the whole potential network communication has been realized, the network exhibits an integrated level. The study results demonstrate that nurses from different wards communicate less with each other and are more inclined to communicate with nurses from their own wards. A study conducted in Iran revealed that the nursing network of Razi Hospital in Rasht, Iran, comprised 64 nodes/nurses, 168 undirected and weighted edges/links, and was classified into 9 clusters, with 6 of these clusters belonging to the investigated wards. Due to the low network density (0.083), the network exhibited low cohesion, meaning that only 8.3% of the total potential and latent communication within the network were activated. In other words, nurses within a cluster or ward demonstrate interconnectedness and strong communication. However, the network of nurses is characterized by weak communication between different wards [15], which aligns with the findings of this study. One of the weaknesses of informal communication networks is the low number of reciprocal communications. Given that, unlike formal communication, there is no obligation in informal communication, it was expected that a higher percentage of informal communication would be reciprocal; that is, there would be a mutual desire to establish these connections. However, this very low percentage may indicate that informal communication among nurses has not yet found its proper place, and this could culminate in network disruption, reducing the positive impacts of this communication on decisions and functions [17]. In line with this study, Shafiei et al. (2018) and Kangarani et al. (2013) stated in their research that informal communication networks existed and could influence formal communication networks. They also highlighted that a strength of informal communication is that it is not limited to employees within a single ward but extends across employees at various wards [15, 17]. These findings are inconsistent with the results of Shoham et al.'s study (2016) [18]. It

can be argued that informal communication networks, in addition to their positive effects, can also have negative and inhibitory effects. Additionally, nursing managers can leverage information from these networks to enhance both productivity and workforce efficiency. For instance, the assignment of individuals to different wards could be based on their ability and willingness to establish friendly and informal communication with other employees. Moreover, it is possible to leverage the abilities of individuals with strong social connections to engage those who lack such connections [17]. On the other hand, studies have shown that over half of employees turn to their friends when facing work-related challenges [17]. It must be said, Low levels of reciprocal communication are a key weakness of informal communication networks among nurses. As informal communication is thought to foster reciprocal interaction due to its voluntary nature, it promotes trust and shared accountability [19]. Studies show that reciprocal interaction among nurses remains low, and the lack of these interactions can reduce the positive effects of informal exchanges on organizational outcomes and the effectiveness of collaborative decision-making, and hinder the development of cohesive networks [18, 20]. To address this issue, nurse managers can enhance nurses' professional growth by using targeted strategies such as peer coaching programs, which are effective in strengthening individual bonds and increasing reciprocal interaction [21, 22]. Also, holding informal meetings between different departments, focusing on promoting shared decision-making, and using social activists to engage less active staff can improve network cohesion and enhance the benefits of informal communication. Therefore, the existence of a robust communication network, particularly among nurses, and the presence of effective and accurate communication among them have always been significant factors influencing the success of healthcare service organizations.

In this study, nursing staff demonstrated a greater inclination to establish communication with colleagues similar to them, such as years of experience, age, gender, and job position, in a social network. In other words, individuals tend to seek out similar individuals within wards for communication. In a study aimed at examining the position of women in organizational networks, Mohammadi Kangarani et al. (2013) used SNA to map and analyze the informal communication network among male and female employees. The results of their research demonstrated that women, on par with and sometimes even more than men, engage in informal intra-organizational communication. However, the nature of their involvement differs, which can be attributed to the varying degrees of centrality between women and men. Additionally, the nature and environment of work, the level of its harshness, and the arrangement of women and men in the workplace influence the communication between women and men [23]. A study investigating the barriers and motivations for women to join networks, as well as the significance of formal and informal networks on the career advancement and promotion of female nurses, revealed that work experience and education level significantly influenced women's networking behaviors. Furthermore, a significant correlation was found between work experience, education level, and networking on women's career advancement and promotion [24, 25]. Consistent with this study, Webster et al. demonstrate in their research that in formal communication networks, managers and head nurses hold more central and pivotal roles. However, in informal communication networks, connections among individuals are formed based on their personal, racial, and linguistic characteristics [26]. Another study revealed that the nursing profession utilized informal communication networks more extensively than other occupational groups [25]. Moreover, these findings align with the results of previous research conducted by Bae et al. (2017) [27], Shafiei et al. (2018) [15], and Shoham et al. (2016) [18]. According to Grandey, this type of communication is often more intimate and profound than formal communication, and the exchange and transmission of information through this channel is more accurate and faster. This is because the nursing profession, due to its direct contact with patients and their conditions, requires rapid and accurate exchange of information with other colleagues and professionals to achieve its goals [28].

The results of this study revealed a statistically significant correlation between nurses' informal communication networks and their organizational trust. This means that nurses with higher levels of organizational trust were more likely to select colleagues with higher communication scores compared to those with lower levels of organizational trust. A lack of research on this topic was evident. However, an analysis of results from some studies with conceptually similar variables to the current findings has been reported. For instance, a study examining the correlation between organizational trust and nursing practice characteristics revealed a direct correlation between organizational belonging and trust and nursing practice characteristics, as well as between nursing practice characteristics and all dimensions of organizational belonging and trust [29]. It can be said that a sense of social belonging refers to a sense of unity with a social class or

similarity among members of an organization. It is a process through which individuals perceive themselves as similar to another person or group of people and acts as a powerful motivator for individuals to take joint action and activity [30-32]. Researchers believe that the foundation of all trust lies in an individual's assertion of their social identity, formed through interactions with others [33]. Furthermore, employee trust in the organization serves as a mediator between the effects of internal communication on employee attitudinal and behavioral outcomes, such as openness to change [34], job engagement [35], and employee communication behavior [36]. A review of the literature suggests that symmetrical, mutual communication between the organization and employees, which emphasizes mutual interaction, employee voice, responsiveness, and empowerment [36], can foster an organizational culture laden with joy, pride, and gratitude, ultimately leading to increased employee trust in the organization [37]. Moreover, according to studies by Ghera and Raesei, communication skills culminate in increased organizational trust. In other words, the higher the employees' proficiency in verbal skills, listening skills, and feedback skills, the greater the organizational trust [38]. Results from another study revealed that employees' trust in the organization has a positive significant impact on their sense of belonging and identification with the organization [39]. Therefore, it can be stated that the higher the individuals' social belonging, the greater their communication and desire to establish connections. These variables are influenced by organizational trust. This finding supports the argument of Kramer et al. (2001), who contended that the employees' sense of identification with the organization is strongly correlated with their beliefs about trust or distrust, giving rise to emotional consequences [40]. Moreover, engaging in and benefiting from trust-building behaviors lead to positive emotions, such as a sense of belonging and organizational identification [40, 41].

In this study, a significant statistical correlation was found between nurses' informal communication networks and organizational communication satisfaction. Nurses who reported higher organizational communication satisfaction were more likely to choose colleagues with higher interaction scores compared to those with lower satisfaction. Consistent with this study, Vermeir et al.'s study demonstrated that nurses' intra-organizational communication could influence their organizational communication satisfaction, job satisfaction, burnout, and intention to job turnover. Nurses who had stronger intra-organizational communication reported higher levels of organizational communication satisfaction and job satisfaction, as well as lower levels of burnout and intention to job turnover [13]. Organizational communication satisfaction is a multi-dimensional construct that reflects several important variables. Most importantly, it elucidates the key points of individuals' interactions with supervisors, subordinates, work groups, work itself, and organizational policies [42, 43]. Employee-manager communication satisfaction is contingent upon the quality and consistency of the way of mutual communication and understanding this process by individuals significantly impacts organizational success [44]. This variable plays a pivotal role in enhancing organizational commitment and employee and organizational effectiveness. Previous studies have reported that poor organizational communication culminates in undesirable outcomes, such as low organizational commitment, higher absenteeism, increased employee turnover, and reduced productivity [4, 45]. It is recommended that hospital managers and administrators strive to optimize informal communication among employees in order to subsequently improve organizational communication satisfaction and for the organization to benefit from positive outcomes.

LIMITATIONS

One of the limitations of this study was the use of the Self-Report method to collect part of the data. Although it seems that using the "observation" method, more detailed information can be obtained in this field. Also, the study was conducted in a single hospital, which may limit the broader applicability of the results to other psychiatric settings or healthcare institutions.

CONCLUSION

According to the results of this study, psychiatric nurses communicate less with nurses from other wards and are more inclined to form communication primarily with colleagues within their own wards. These nurses have a greater inclination to establish communication with colleagues similar to them, such as years of experience, age, gender, and job position, in a social network. Moreover, nurses who reported higher levels of organizational trust and communication satisfaction

are more likely to choose colleagues with higher communication scores for interaction compared to those with low levels of organizational trust and communication satisfaction.

IMPLICATIONS FOR NURSING

Given the physical, psychological, and organizational impacts of the informal workplace communication phenomenon on nurses working at hospitals, managers, and nursing policymakers should develop systematic and precise plans to recognize, prevent, and manage this phenomenon. Organizational factors that contribute to the formation of communication networks in the workplace of nurses should also be identified. Given the significant correlation of informal workplace communication with organizational trust, and communication satisfaction, hospitals should prioritize the identification and mapping of these communication networks within nursing work environments. By recognizing these communication patterns, organizations can better understand their impact on nurses, patients, and healthcare delivery systems. Hence, it is recommended that further research be conducted on the effects of informal intra-organizational communication networks in hospitals.

SUGGESTIONS FOR FUTURE RESEARCH

To gain a deeper understanding, future researchers should explore nurses' perceptions of informal communication using qualitative research methods, such as interviews for data collection. Conducting studies in different psychiatric institutions across various cultural and social contexts would also enhance the generalizability of the findings. Emphasizing longitudinal study designs may help reveal changes over time in the dynamics of trust and communication. Additionally, future research should investigate mechanisms that can increase reciprocity and facilitate more effective communication among psychiatric nurses.

ETHICS APPROVAL AND CONSENT TO PARTICIPATE

The current study was approved by the Ethics Committee of Tehran University of Medical Sciences and was registered under the registration number: IR.TUMS.FNM.REC.1399.067. Before the commencement of the project, all required permissions were obtained. Moreover, the participants were assured of the confidentiality of the information and the possibility of withdrawing from the study at any stage.

CONSENT FOR PUBLICATION

Free and informed consent was obtained from all participants in the study.

AVAILABILITY OF DATA AND MATERIALS

The datasets used and analyzed during the current study are available from the corresponding author on reasonable request.

COMPETING INTERESTS

The authors declare none.

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AUTHORS' CONTRIBUTIONS

F, H. H, A. A.,H and SH, M. were involved in designing the idea and preparing the proposal. Data collection was performed by F, H. And H, A. and data analysis was performed by A.,H and SH, M. All researchers have participated in data interpretation, preparation and article preparation.

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USE OF AI IN LANGUAGE PROCESSING

To ensure linguistic clarity and consistency, some sections of this manuscript were translated from the original Persian into English with the assistance of an artificial intelligence-based language model. All translated content was carefully reviewed and revised by the authors to maintain accuracy, context fidelity, and academic tone.

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