

## Assess Nurse Managers' Management of Grapevine Communication among Nursing Staff

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### Abstract

**Background:** Communication is an essential element in the success of any health care organization. Nurse Managers and staff nurses dissatisfied with unmanaged grapevine communication; therefore, nurse managers should understand the power of grapevine communication and play a proactive role in developing strategies to effectively manage grapevine communication. **Aim:** To assess the nurse managers' management of grapevine communication among nursing staff. **Subjects and Method: Setting:** The study was conducted at Tanta University Main Hospital. **Subjects:** Included (35) all nurse managers; supervisors, head nurses, and charge nurses and a simple random sample of 260 staff nurses. Two tools were used: Grapevine Communication and Nurse Managers' Management of Grapevine Communication Questionnaire. **Results:** 77.2% of nurse managers agreed that the causes of using grapevine are regarded to share information without check if correct or not, while 93.1% of staff nurses agreed that the causes of using grapevine are regarded to increasing the divide between senior management and nursing staff. Also 94.3% of nurse managers had highly management level of creating trust-relationship with the nursing staff, providing nursing staff with adequate access to information and elimination of information overload in the workplace. **Conclusion:** There is a significant positive correlation between causes of using grapevine communication in work environment and the management of grapevine among nurse managers. **Recommendations:** Hospital administration need to develop a system for transmission of formal and informal communication, to accept and interpret types of informal communication to be very beneficial. Nurse Managers keep effective communication practices and updating professionals often can build trust between managers and their staff and provide more opportunities for staff nurses to express their ideas and opinions.

**Keywords:** Grapevine communication, Nurse Manager, Nursing staff

## Introduction

Nurse Managers are leaders in nursing who have round-the-clock responsibility and accountability for a specific care unit, as well as assist in aligning the administration's strategic plan with patient care at the unit level and work with employees to oversee every aspect of daily patient care (**Patarru, Yosefus Weu, Secsaria Handini, & Heryyanoor, 2019**). Nurse Managers need to possess conceptual, technical, interpersonal, and communication skills. They disseminate precise and current information to every team member, ensuring their availability and presence to facilitate quick decision-making and implementation processes (**Menem, Farouk, Eid, & El-Shahat, 2020**).

Efficient communication should be centered on clear objectives that align with the organization's goals and targets. Nurses convey information through both formal and informal channels (**Turkmen, Aydogdu, Goktepe, & Baykal, 2019**). Grapevine communication is a form of informal, unofficial, and personal channel for conversations between nursing staff and nurse managers that operates without a set structure or rule-based system. It is an intricate network of verbal communication that typically circulates quickly and reaches all the staff within the organization (**Bucata & Rizescu, 2017**).

Managers quickly receive feedback from their nursing staff on policies via grapevine channels. Therefore, the feedback received is prompt when compared to the formal communication channel. The nursing staff come together and feels united through the grapevine as they communicate and exchange their perspectives. It assists in the

formation of group unity and boosts productivity (**Srivastava & Purohit, 2021**). Gossip within healthcare organizations can also have negative effects when nurses spread rumors, inaccurate information, and incomplete details, leading to confusion, frustration, decreased productivity, and dissatisfaction in the workplace. Similarly, in an unofficial communication system, there are no established guidelines or regulations (**Sarai & Gotor, 2021**). Thus, nurse managers' ways of management to this type of communication are very important to alleviate its consequences (**Muhamedi & Mohd, 2017**).

Nurse Managers have various methods to address the negative impact of grapevine communication, such as providing open channels of communication for creating transparent communication channels aligned with the message's objective and sharing diverse information (**Aschale, 2018**). Creating trust-relationship with the nursing staff to enhance engagement among nursing staff and managers, enhance patient care, and increase financial performance (**Hadi-Moghaddam, Karimollahi, & Aghamohammadi, 2021**). Also, providing staff with an adequate access to information and the feeling of security to protect them against disclosure, analyze selected issues in the field of data access, control methods and nursing staff responsibility (**Justyna, & di Taranto, 2019**). In addition, eliminating information overload in the workplace can be achieved by pinpointing three to five top priorities, schedule related tasks together, recognizing their significance, and making sound choice and effective decisions (**Laroui, 2021**). Finally, picking up the false rumors and dispel them and understanding and managing informal group (**Aschale, 2018**).

**Significance of the study:**

Communication is an essential element in the success of any health care organization. **Sriyanti and Musharyanti, (2022)**, found that nurse managers and staff nurses dissatisfied with informal communication. Unmanaged grapevine communication has a negative effect on the relationships in the workplace and damages the organization's reputation. Therefore, it is crucial for nurse managers to understand the power of grapevine communication in order to be able to control and manage it effectively. Also, a study done by **Hassan, Abdel-megeed, and Moursi (2021)** found that the lack of effective communication can lead to misunderstanding, poor performance, interpersonal conflict, ineffective program development, medical mistakes, and many other undesirable outcomes. So, nurse managers can play a proactive role in developing strategies to effectively manage grapevine communication negative effect in order to enhance staff satisfaction and create a positive working environment for staff members (**Enuoh & Inyang, 2023**).

**Aim of the Study**

Assess the nurse managers' management of grapevine communication among nursing staff.

**Research Questions:**

1. What are the causes of grapevine communication?
2. What are the levels of nurse managers' management of grapevine communication among nursing staff?
3. What is the relation between causes of using grapevine communication in work environment and the management of grapevine among nursing staff?

**Subjects:****Research design:**

A descriptive correlational study design was used in the present study.

**Setting:**

The study was conducted at Tanta University Main Hospital with total bed capacity 829 that divided into 166 beds at Gynecology and Obstetrics, 143 beds at Cardiac, 173 beds at Neurology, 65 beds at Tropical, 16 beds at Blood bank, 12 beds at Central laboratory, 122 beds at Hematological and 132 beds at Pediatric departments.

**Subjects:**

The subjects of this study included two groups including all (N=35) nurse managers; supervisors, head nurses, and charge nurses at the previously mentioned setting and a simple random sample of staff nurses (n=260) was selected from total number of staff (N=841) nurses. The technique for selecting the sample from the previous mentioned setting was proportional according to the number in each department. The sample size and power analysis calculated using Epi-info software statistical package. The criteria used for sample size calculation was as follow: Z=confidence level at 95% (1.96) and d=Error proportion (0.05).

**Tools of data collection:**

To collect data of this study two tools were used:

**Tool I: Grapevine Communication Structured Questionnaire**

This tool developed by the investigator guided by **Bulduk, (2016); Ghani, et al., (2015), and literature (Aschale, 2018; Elsayed, et al., 2019)**. It was used to assess grapevine communication causes and management from staff nurses and nurse managers point of views. It consisted of 3 parts:

**Part 1:** Demographic characteristics of study subjects as; age, gender, marital status, educational level, years of experiences, position, and department name.

**Part 2:** Causes of using grapevine communication in work environment; it was used to assess causes of using grapevine communication from nurse managers and staff nurses' point of view. The causes included twenty-one items that divided into:

Incomplete information from formal channels, workload dissatisfaction, an increase in conflict, slow acting in the management (Ghani, et al., 2015).

#### Scoring system:

Subjects' response was measured by five-point Likert Scale ranging from (1-5) where (1) strongly disagree, (2) disagree, (3) neutral, (4) agree, (5) strongly agree. The ranking of causes was detected by the more common reasons influencing on using grapevine in work environment based on the number of subject's response.

N.B: Strongly Agree + Agree = Agree

Strongly Disagree + Disagree = Disagree

#### Tool II: Nurse Managers' Management of Grapevine Communication Questionnaire

This tool was developed by the investigator guided by Aschale, (2018). It was used to assess nurse managers' ways to manage and prevent negative effect of grapevine communication; it consisted of 7 dimensions:

- Providing open channels of communication from 7 items.
- Creating trust-relationship with the nursing staff from 8 items.
- Providing nursing staff with an adequate access to information from 5 items.

- Eliminating information overload in the workplace from 6 items.

- Picking up the false rumors and dispel them from 8 items.

- Understanding and managing informal group from 5 items.

- Avoiding threatening the informal groups from 2 items.

#### Scoring system:

Nurse Managers' responses were measured on a five-point Likert Scale ranging from (1-5) where (1) never, (2) rarely, (3) sometimes, (4) often, (5) always. The total scores calculated according to cut off point and summing scores of all categories. The total scores represented varying levels as follow:

- High management level > 75% (> 153.75)

- Moderate management level= 60% -75% (123-153.75)

- Low management level < 60% (< 123)

N.B: Strongly Agree + Agree = Agree

Strongly Disagree + Disagree = Disagree

#### Method:

1-Official permission to carry out the study was obtained from. Dean of Faculty of Nursing and sent to administrator of Tanta University hospital.

2-The purpose of the study was explained to nurse managers and staff nurses to gain their cooperation and obtain verbal consent for their participation in the study.

#### 3-Ethical consideration:

-An approval of ethical committee at Faculty of Nursing was obtained (1-6-2021).

-All participants informed about the purpose of the study.

-An informed consent has been taken from each participant in the study including the right to withdraw at any time.



-The investigator ensured that the nature of the study do not cause any harm for the entire sample.

-Confidentiality and privacy were taken into consideration regarding data collection.

4-Tools of data collection was developed and translated into Arabic language by the investigator based on recent literature review.

5-Study tools were presented to a jury of five expertises in the area of specialty to check content validity of each tool after translation. The five experts were from Faculty of Nursing Tanta University, five experts were 3 professors and 2 assistant professors.

The experts' responses were represented in four points rating scale ranging from (4-1); 4 strong relevant, 3 relevant, 2 little relevant and 1 not relevant. Necessary modifications were done including clarification, omission of certain items and simplifying work related words. The result of content validity value ranged from 95.5 to 100.

6-Suitable statistics test was used to test the tool for its reliability.

7-A pilot study was carried out by the investigator on 4 nurse managers and 26 staff nurses. The pilot study was done to test clarity, applicability and relevance of questions. The pilot study was excluded from the total study sample and necessary modifications were done based on their responses.

8-Data collection phase: the data were collected from subjects by the investigator. The investigator met study subjects in the working area of their department to explain the aim of the study and distribute the questionnaire sheets for them. The estimated time needed to complete the questionnaires items from subjects was 30

minutes. The data were collected over a period of three months from May to July 2022.

#### **Statistical analysis:**

The collected data were organized, tabulated and statistically analyzed using SPSS software (Statistical Package for the Social Sciences, version 26, SPSS Inc. Chicago, IL, USA). For qualitative data were described using number and percentage. For quantitative data were described using the range, mean, mean percent, ranking and standard deviation were calculated. Correlation between variables was evaluated using Pearson's correlation coefficient (r). For comparison between more than two means of non-parametric data, Kruskal-Wallis ( $\chi^2$  value) was calculated. Significance was adopted at  $P < 0.05$  and highly significance was adopted at  $P < 0.01$  for interpretation of results of tests of significance.

#### **Results**

**Table (1):** Shows distribution of demographic characteristics of study subjects. Nurse Manager's age ranged from 27 to 46 years old with mean scores  $37.42 \pm 5.28$ . The majority (94.3%, 97.1%) of them was females and married. The largest percent (20.1%) of them were working in pediatric and hematological department, while the lowest percent (5.7%) of them working in blood bank and central laboratory departments. Regarding to qualification high percent (62.9%) of them had Bachelor of Science in nursing. While, (25.6%, 8.6%, 2.9%) had master, diploma and doctorate degree, respectively. Sixty percent (60.0%) of them had 6-10 years of experience in the present unit. More than half (54.2%) of them were supervisors.

Additionally, staff nurses aged ranged from 21 to 40 years old with mean scores  $29.25 \pm 5.14$ . The majority (88.8%, 85.0%) of them

was females and married. The largest percent (20.8%) of them were working in pediatric and hematological department, while the lowest percent (7.3%) of them were working in tropical department. Regarding to qualification more than one third (33.8%) of them had secondary diploma. While, 26.5%, 11.2% had Bachelor of Science in nursing and master degree, respectively. Nearly half (46.5%) of them had 6-10 years of experience in the present unit. All of them were staff nurses.

**Table (2):** Demonstrates mean percentage of the studied nurse managers' responses according grapevine communication dimensions. The total mean percent scores were 81.4%. The highest mean percent scores (93.6%) for providing nursing staff with adequate access to information. Followed by (91.4%, 91.1%) for information overload elimination in the workplace and creating trust-relationship with the nursing staff. While the lowest mean percent scores (72.8%) were for avoiding threatening the informal group.

**Table (3):** Represents levels of nurse managers' management of grapevine communication. Table indicates that the majority (94.3%) of nurse managers had highly management level of creating trust-relationship with the nursing staff, providing nursing staff with adequate access to information and elimination of information overload in the workplace. Additionally, 60.0% of them had highly management level of picking up the false rumors and dispel them and understanding and managing informal group, respectively.

**Figure (1):** Reveals levels of total nurse managers' management of grapevine communication. The figure indicates that the majority (85.7%) of nurse managers had highly management level of grapevine

communication. While 14.3% of nurse managers had moderate management level of grapevine communication.

**Table (4):** Indicates correlation between causes of using grapevine communication in work environment and the management of grapevine among nurse managers. There is a significant positive correlation between causes of using grapevine communication in work environment and the management of grapevine among nurse managers in total and in all ways except providing open channels of communication and understanding and managing informal group ( $P < 0.05$ ).

**Table (5):** Indicates correlation between causes of using grapevine communication in work environment and the management of grapevine among staff nurses. There was no correlation between causes of using grapevine communication in work environment and the management of grapevine among staff nurses ( $P > 0.05$ ).

**Table (6):** Demonstrates relation between total nurse managers' point of view according causes of using grapevine communication in work environment, the management of grapevine and their demographic data. There is no relation between causes and management to staff nurses and their demographic characteristics ( $P > 0.05$ ).

**Table (7):** Illustrates relation between total staff nurses' point of view according causes of using grapevine communication in work environment, the management of grapevine and their demographic characteristics except gender ( $p < 0.05$ ).

Table (1): Demographic characteristics of nurse managers and staff nurses (n=295)

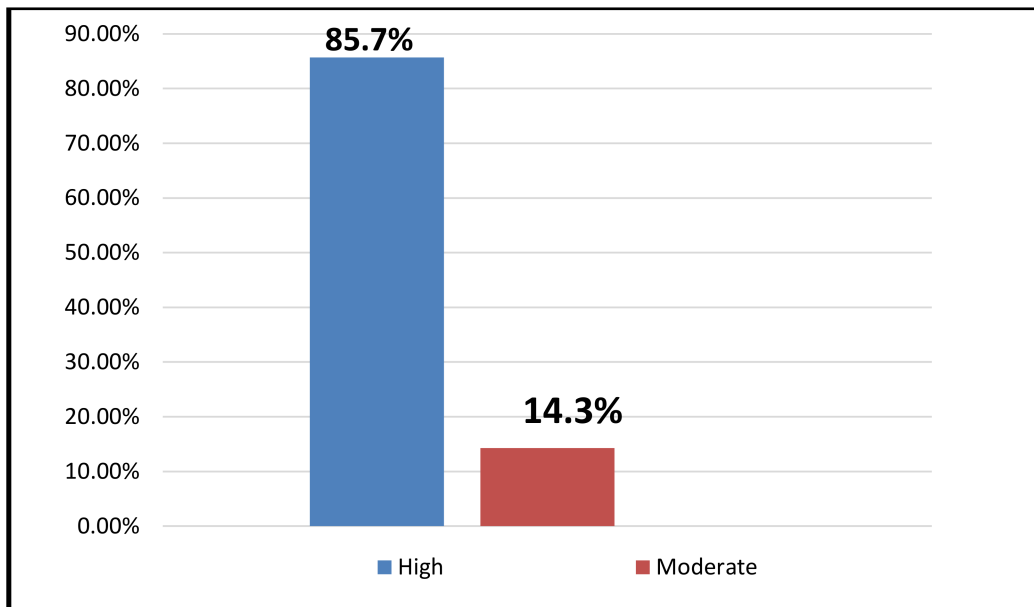
Demographic Characteristics	Study subjects					
	Nurse managers (n=35)		Staff nurses (n=260)		Total (n=295)	
	No.	%	No.	%	No.	%
<b>Age years</b>						
< 25	0	0.0	68	26.2	68	23.1
25 -< 35	9	25.7	159	61.2	168	56.9
35 -< 45	21	60.0	33	12.6	54	18.3
≥ 45	5	14.3	0	0.0	5	1.7
<b>Range</b>	<b>27 – 46</b>		<b>21 – 40</b>		<b>21 – 46</b>	
<b>Mean ± SD</b>	<b>37.42 ± 5.28</b>		<b>29.25 ± 5.14</b>		<b>30.22 ± 5.79</b>	
<b>Gender</b>						
Female	33	94.3	231	88.8	264	89.5
Male	2	5.7	29	11.2	31	10.5
<b>Marital status</b>						
Single	0	0.0	32	12.3	32	10.9
Married	34	97.1	221	85.0	255	86.5
Divorced	0	0.0	2	0.8	2	0.6
Widow	1	2.9	5	1.9	6	2.0
<b>Years of experience</b>						
3-5 years	0	0.0	100	38.5	100	33.8
6-10 years	21	60.0	121	46.5	142	48.1
11-15 years	12	31.3	34	13.1	46	15.5
> 15	3	8.7	5	1.9	8	2.6
<b>Range</b>	<b>6 – 16</b>		<b>3 – 16</b>		<b>3 – 16</b>	
<b>Mean ± SD</b>	<b>10.40 ± 3.06</b>		<b>6.94 ± 3.30</b>		<b>7.35 ± 3.45</b>	
<b>Education level</b>						
Secondary Diploma	0	0.0	88	33.8	88	29.8
Associate Nursing Degree	0	0.0	69	26.5	69	23.4
Bachelor of Science in Nursing	22	62.9	69	26.5	91	30.9
Postgraduate Diploma	3	8.6	5	1.9	8	2.7
Master of Science in Nursing	9	25.6	29	11.2	38	12.9
Philosophy of Doctoral in Nursing	1	2.9	0	0.0	1	0.3
<b>Department</b>						
Gynecology and Obstetrics department	4	11.4	43	16.5	47	15.9
Cardiac department	7	20.0	52	20.0	59	20.0
Neurology department	5	14.3	21	8.1	26	8.8
Tropical department	4	11.4	19	7.3	23	7.8
Blood bank department	2	5.7	22	8.5	24	8.1
Central laboratory department	2	5.7	24	9.2	26	8.8
Pediatric and hematological department	7	20.1	54	20.8	61	20.6
Oncology department	4	11.4	25	9.6	29	9.8
<b>Job title</b>						
Supervisor	19	54.2	0	0.0	19	54.2
Head nurse	8	22.9	0	0.0	8	22.9
Charge nurse	8	22.9	0	0.0	8	22.9
Staff nurse	0	0.0	260	100.0	260	100.0

**Table (2): Mean percentage of the studied nurse managers' responses according grapevine communication dimensions (n=35).**

Management of Grapevine Dimensions	Mean scores of the studied manger nurses' responses according grapevine communication			
	Ideal range	Range	Mean $\pm$ SD	Mean percent (%)
-Providing open channels of communication	7 – 35	22 – 34	29.77 $\pm$ 2.69	85.1
-Creating trust-relationship with the nursing staff	8 – 40	26 – 40	36.45 $\pm$ 3.64	91.1
-Providing nursing staff with adequate access to information	5 – 25	18 – 25	23.40 $\pm$ 1.68	93.6
-Eliminate information overload in the workplace	6 – 30	20 – 30	27.42 $\pm$ 2.70	91.4
-Picking up the false rumors and dispel them	8 – 40	21 – 38	31.11 $\pm$ 4.64	77.8
-Understanding and managing informal group	5 – 25	11 – 25	18.62 $\pm$ 4.16	74.5
-Avoid threatening the informal groups	2 – 10	4 – 10	7.28 $\pm$ 2.19	72.8
<b>Total</b>	<b>41 – 205</b>	<b>127 – 189</b>	<b>166.80 <math>\pm</math> 12.285</b>	<b>81.4</b>

**Table (3): Levels of nurse managers' management of grapevine communication (n=35)**

Management of Grapevine Dimensions	Levels of nurse managers' management of grapevine communication					
	High		Moderate		Low	
	No.	%	No.	%	No.	%
-Providing open channels of communication	32	91.4	3	8.6	0	0.0
-Creating trust-relationship with the nursing staff	33	94.3	2	5.7	0	0.0
-Providing nursing staff with adequate access to information	33	94.3	2	5.7	0	0.0
-Eliminate information overload in the workplace	33	94.3	2	5.7	0	0.0
-Picking up the false rumors and dispel them	21	60.0	12	34.3	2	5.7
-Understanding and managing informal group	21	60.0	5	14.3	9	25.7
-Avoid threatening the informal groups	18	51.4	6	17.1	11	31.5

**Figure (1): Levels of total nurse managers' management of grapevine communication (n=35)**

**Table (4): Correlation between causes of using grapevine communication in work environment and the management of grapevine among nurse managers (n=35)**

Management of grapevine	Causes of using grapevine communication in work environment	
	r	P-value
-Providing open channels of communication	0.163	0.349
-Creating trust-relationship with the nursing staff	0.453	<b>0.006**</b>
-Providing nursing staff with adequate access to information	0.429	<b>0.010*</b>
-Eliminate information overload in the workplace	0.383	<b>0.023*</b>
-Picking up the false rumors and dispel them	0.526	<b>0.001**</b>
-Understanding and managing informal group	0.301	0.078
-Avoid threatening the informal groups	0.430	<b>0.010*</b>
<b>Total of management of grapevine</b>	<b>0.543</b>	<b>0.001**</b>

\* Statistically significant difference at (P<0.05)

\*\* Highly Statistically significant difference at (P<0.01)

**Table (5): Correlation between causes of using grapevine communication in work environment and the management of grapevine among staff nurses (n=260)**

Management of grapevine	Causes of using grapevine communication in work environment	
	r	P-value
-Providing open channels of communication	0.041	0.508
-Creating trust-relationship with the nursing staff	0.098	0.117
-Providing nursing staff with adequate access to information	-0.023	0.710
-Eliminate information overload in the workplace	-0.062	0.320
-Picking up the false rumors and dispel them	-0.007	0.913
-Understanding and managing informal group	-0.070	0.262
-Avoid threatening the informal groups	-0.036	0.561
<b>Total of management of grapevine</b>	<b>0.003</b>	<b>0.958</b>

**Table (6): Relation between total nurse managers' point of view according causes of using grapevine communication in work environment, the management of grapevine and their demographic data (n=35)**

Demographic Characteristics	causes of using grapevine communication in work environment		The management of grapevine	
	Mean ± SD	χ <sup>2</sup> values, P	Mean ± SD	χ <sup>2</sup> values, P
<b>Age years</b>				
25 - < 35	73.8 ± 15.4	1.109 0.775	160.4 ± 19.6	1.694 0.638
35 - < 45	76.1 ± 11.5		196.0 ± 12.4	
≥ 45	69.7 ± 11.4		185.7 ± 9.6	
<b>Gender</b>				
Female	73.5 ± 0.707	20.5	174.0 ± 8.48	31.5
Male	72.9 ± 12.85	0.374	166.3 ± 12.4	0.915
<b>Marital status</b>				
Married	72.7 ± 12.5	9.00	166.6 ± 12.4	11.0
Widow	80.0 ± 0.00	0.571	172.0 ± 0.00	0.552
<b>Years of experience</b>				
6-10 years	73.7 ± 12.85	0.207 0.902	174.5 ± 11.1	0.224 0.894
11-15 years	72.5 ± 13.32		192.4 ± 8.4	
> 15	72.4 ± 12.54		185.9 ± 12.1	
<b>Education level</b>				
Bachelor of Science in Nursing	73.1 ± 11.54	3.425 0.331	188.2 ± 13.2	3.099 0.377
Postgraduate Diploma	72.3 ± 11.65		174.8 ± 14.4	
Master of Science in Nursing	73.8 ± 11.70		179.4 ± 14.6	
Philosophy of Doctoral in Nursing	88.0 ± 0.00		177.0 ± 0.0	
<b>Department</b>				
Gynecology and Obstetrics department	72.5 ± 10.3	6.919 0.437	176.4 ± 16.6	7.344 0.394
Cardiac department	76.8 ± 11.8		193.2 ± 11.4	
Neurology department	75.3 ± 13.9		188.3 ± 13.2	
Tropical department	71.4 ± 11.8		191.8 ± 15.2	
Blood bank department	72.4 ± 15.2		169.6 ± 19.8	
Central laboratory department	76.5 ± 13.2		174.2 ± 13.3	
Pediatric and hematological department	77.2 ± 11.9		193.6 ± 17.3	
Oncology department	72.9 ± 12.8		176.8 ± 14.9	
<b>Job title</b>				
Supervisor	73.22 ± 10.54	0.513 0.774	184.8 ± 18.6	1.236 0.539
Head nurse	76.43 ± 12.35		196.3 ± 17.6	
Charge nurse	75.33 ± 12.65		184.3 ± 13.8	

**Table (7): Relation between total staff nurses' point of view according causes of using grapevine communication in work environment, the management of grapevine and their demographic data (n=260)**

Demographic Characteristics	causes of using grapevine communication in work environment		The management of grapevine	
	Mean ± SD	χ <sup>2</sup> values, P	Mean ± SD	χ <sup>2</sup> values, P
<b>Age years</b>				
< 25	73.14 ± 6.24		154.8 ± 12.43	
25 - < 35	73.01 ± 6.63	0.723	155.2 ± 14.51	2.857
35 - < 45	71.84 ± 6.25	0.697	150.1 ± 15.21	0.240
<b>Gender</b>				
Female	74.0 ± 5.41	1.381	182.4 ± 11.9	<b>3.106</b>
Male	72.7 ± 6.5	0.167	153.5 ± 13.1	<b>0.002*</b>
<b>Marital status</b>				
Single	72.7 ± 12.5	1.094	154.8 ± 11.4	2.976
Married	72.1 ± 11.6	0.471	143.0 ± 13.2	0.531
Divorced	73.5 ± 10.5		151.5 ± 11.4	
Widow	72.9 ± 13.2		152.7 ± 17.4	
<b>Years of experience</b>				
3-5 years	70.6 ± 10.5		153.9 ± 7.3	
6-10 years	73.5 ± 11.7	2.065	156.5 ± 9.9	1.943
11-15 years	74.5 ± 13.3	0.452	154.9 ± 9.8	0.297
> 15	72.7 ± 11.9		158.5 ± 10.4	
<b>Education level</b>				
Secondary Diploma	74.5 ± 11.1		154.7 ± 11.6	
Associate Nursing Degree	73.9 ± 15.8		152.4 ± 13.1	
Bachelor of Science in Nursing	75.1 ± 10.7	3.537	158.3 ± 14.3	3.287
Postgraduate Diploma	72.3 ± 12.5	0.339	154.6 ± 11.8	0.419
Master of Science in Nursing	73.8 ± 12.7		159.5 ± 10.9	
<b>Department</b>				
Gynecology and Obstetrics department	72.5 ± 15.2		154.4 ± 10.6	
Cardiac department	72.8 ± 12.8		153.2 ± 13.7	
Neurology department	71.3 ± 11.4		154.3 ± 15.2	
Tropical department	70.4 ± 12.6	5.853	151.8 ± 11.4	8.654
Blood bank department	72.4 ± 13.2	0.422	153.6 ± 11.5	0.524
Central laboratory department	74.5 ± 14.2		152.2 ± 12.2	
Pediatric and hematological department	72.2 ± 12.7		153.6 ± 12.3	
Oncology department	72.9 ± 10.6		152.8 ± 11.7	
<b>Job title</b>				
Staff nurse	72.90 ± 6.47	--	154.4 ± 14.1	--



## Discussion

Nearly all nurse managers had highly management level of grapevine communication. Majority of nurse managers had highly management level of creating trust-relationship with the nursing staff, providing nursing staff with adequate access to information and elimination of information overload in the workplace. Additionally, more than fifty of them had highly management level of picking up the false rumors and dispel them and understanding and managing informal group.

These results supported by **(Ahmed Sadek, Abd Elrhman, Fahmy, and Gabra (2022))** highlight the importance of nurse managers in recognizing and understanding the challenges faced by nurses in order to effectively address them and find suitable solutions. Also, these results agreed with the study conducted by **(Teker, Söyler, and Çavmak (2023))** that recommended that identifying the correct types and formation process of groups in organizations can help increase and manage informal groups, while also motivating staff to create more value.

In accordance with the present study majority of nurse managers had high level in creating trust-relationship with the nursing staff. This due to nurse manager ensure that nursing staff rights are protected, are willing to help others selflessly, act as role models by leading by example, and support the viewpoints of the nursing staff. Our study supported by **(Hadi-Moghaddam, Karimollahi, and Aghamohammadi (2021))** results that showed the strong confidence that nurses have in their nursing manager. When the staffs in a work setting have confidence in their supervisors, they are more receptive to their instructions and

are more focused on carrying out their tasks to help the organization reach its objectives.

Also, the present study supported by **(Abukari Kwame, and Petrucka (2020))**, who showed that gaining the trust of nurses is crucial to guaranteeing the delivery of effective and safe care, improving work efficiency, and reducing errors and dissatisfaction. In contrary, these results disagreed with the study conducted by **(Basit and Duygulu, (2018))** suggested a low level of trust in the workplace organization.

Study result revealed that there was significant positive correlation between causes of using grapevine communication in work environment and the management of grapevine among nurse managers. This result may be due to the nurse managers utilize grapevine communication to avoid the adverse impacts of communication in their organizational responsibilities, such as the spread of gossip and rumors, the cultivation of a climate of fear, mistrust, and the wastage of time. **(Attiah and Alhassan, (2022))** supported our result and mentioned that it is crucial for nurse managers to understand the reasons behind gossip and rumors in their organization and how to effectively manage them to prevent any negative impacts on the organizational outcomes.

There is no relation between causes of using grapevine and nurses' demographic characteristics while there was significance different between management of grapevine and gender. This result may be due to that female nurse take more gossip and rumor than male. Similarly, **(Humaida, (2022))** found no significant difference in gossip and rumors according to age and gender. **(Anusiewicz, Ivankova, Swiger, Gillespie, and Patrician (2020))** determined that female nurses and those who have a bachelor's degree are more

negatively affected by gossip and rumors. Also, **(Kim, Moon, and Shin (2019))** found that gossip and rumors are negatively related to increased age, and females tend to partake in more gossip and rumors as compared with males. In addition, **(Sun, Schilpzand, and Liu (2023))** determined that females are more negatively affected by gossip and rumors in terms of teamwork and emotional fatigue as compared with males.

### Conclusion

The majority of nurse managers agreed that the causes of using grapevine are regarded to share information without check if correct or not. While most of staff nurses agreed that the causes of using grapevine are regarded to increasing the divide between senior management and nursing staff. Most of nurse managers had highly management level of creating trust-relationship with the nursing staff, providing nursing staff with adequate access to information and elimination of information overload in the workplace. There is a significant positive correlation between causes of using grapevine communication in work environment and the management of grapevine among nurse managers in total and in all ways except providing open channels of communication and understanding and managing informal group.

### Recommendations

-For hospital administration Develop a system for transmission of formal and informal communication, to accept and interpret types of informal communication to be very beneficial.

-For nurse managers keep effective communication practices and updating professionals often can build trust between managers and their staff and provide more opportunities for staff nurse to express their ideas and opinions.

-Further research on study the influence of grapevine communication on patient safety.

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