

## Nurses' Communication Competence of Handoff and its Relation to Quality of Handoff Reports at Fakous Central Hospital

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### 1.ABSTRACT

**Background:** Communication competence among nurses is essential to ensure patient safety, reduce medical errors and deliver high quality of care. As well as, quality handoff is an integral component of communication competence in health care. **Aim:** Explore nurses' communication competence of handoff and its relation to quality of handoff reports at Fakous central hospital. **Method:** Descriptive cross sectional design was utilized, included (151) nurses (incoming nurses (76) and outgoing nurses (75) working at Fakous central hospital. Data was collected by using two tools:-Nurse Communication Competence Scale, and Manser Handover Quality Rating Tool. **Results:** The incoming and outgoing nurses had the highest level of communication competence than their (counterpart) peers. There is no statistical significant difference among level of handoff quality between incoming versus outgoing nurses; more than half of the total nurses had good perception toward handoff quality levels. There was highly statistically significant positive correlation between total and all dimensions of communication competence during handoff and total, and all dimensions of quality of handoff report among incoming nurses, and outgoing nurses. **Conclusion:** Communication competence during handoff affects positively the quality of handoff report among incoming and outgoing nurses. **Recommendations:** Creating work environments that encourage communication competence, place policy that commitment to handoff standard and training nurses on the policy, and make form as checklist contain elements of handoff and communication.

**Keywords:** *Communication Competence, Handoff, Incoming nurses, Outgoing nurses, Quality Handoff Report.*

### 2.Introduction:

Communication in nursing is a crucial component of a nurse's duty to effective and safe manages patients. It is an essential part of daily work for nursing staff as well as for providing patients with care. Communication among nurses is described as the exchange of knowledge about patient care, including concerns, comments, and suggestions as well as guidance and clarification needs. The ability to interact respectfully and successfully with others in the healthcare industry fosters job satisfaction, retention, and positive working relationships (Gumbs, 2019).

Effective communication is essential to an organization's overall success, the staff's safety, and the safety of their patients. Poor communication has led to unhygienic working conditions, prescription errors, higher nurse turnover, and financial costs for organizations. So, communication competence is essential for safe, efficient teamwork and care delivery in the healthcare setting. Communication competence consists of a number of communication traits and abilities, such as affiliation, empathy, behavioral flexibility, relaxation, the capacity to adjust to

change, and interaction control. Communication competence refers to one's capacity to communicate appropriately and effectively in order to attain a goal (Creswell, 2019).

Communication competence is a multifaceted variable in information exchange process that consists of information-giving, information-seeking, information-verification and socioemotional activities. The act of imparting knowledge is known as information giving, with a focus on imparting knowledge about the medical issue. Knowledge seeking is a strategy for gathering information right now. It might use direct or indirect methods, and it can be evaluated by politely and comprehensibly posing questions and allowing others to respond (Streeter, Harrington & Lane, 2015).

As well as, information verifying is a process in which each communicator double-checks their knowledge of the information they have just heard. Clarification, repetition, summarization, and forecasting are all components of information verification, and via mutual communication, both the presenter and the

recipient of the information are able to correct any misunderstood information. The interpersonal parts of communication that center on things like "trust, warmth, and expression of concern" are known as socioemotional behaviors. Compassion, honesty, and contributing to a relationship of trust are examples of behaviors (O'Brien, Flanagan, Bergman, Ebricht & Frankel, 2016).

An important type of communication that needs the competences of communication between nurses and other healthcare professionals is called handoff. Planning patient care, patient assessment, and patient management should be included in handoff. The handoff report describes the interchange of nursing, medical, and technical knowledge that takes place when the responsibility for a patient's care is passed from one career to another. During the shift-to-shift report, the nurse handoff procedure involves the sharing of vital information related to the delivery of safe and efficient patient care. All members of the healthcare team participate in the daily exchange of information pertaining to patient care at predetermined periods (Birmingham, Buffum, Blegen & Lyndon, 2015).

The importance of the quality of nursing care is reflected in and represented by the integrity of the nursing documentation. Which represents the caliber of the care given and serves as both a legal and historical overview of the nursing process. Quality of handoff as a type of nursing documentation is the accomplishment of objectives in data reporting from the viewpoint of the incoming and outgoing nurses. Handoff data should be comprehensive, accurate, consonant, believable, and timely. The quality of handoff can influence nurse communication and care coordination. While, poor quality of handoff are a departure from the accepted standard of care, and they pose a risk of injury to patients because to the duplication of care brought on by erroneous or omitted information (Stevens, 2017).

As well as, Manser working on improving handoff through concentrated on the conduct of the handoff, nurse team work, handoff quality and circumstances of the handoff to discuss social communication issues and how they affect patient safety. Quality handoff affected by establishing a uniform format and content for the patient handoff, along with a face-to-face question and feedback session with the patient. Quality handoff report can be viewed in information exchange between incoming and outgoing nurse. Incoming nurse is a nurse beginning their shift in the medical facility where they provide care for patients. An outgoing

nurse is one who is finishing a shift providing patient care in a facility. (Zhang, 2016).

The integrity of the information transmitted among nurses is still in danger despite strenuous attempts to strengthen the shift-to-shift hand-off report process. Numerous confusing factors affect the handoff report's quality, communication, efficiency, and efficacy. These elements include the report's delivery method, format, location, and findings from the patient assessment report (volume status, vital signs, pain level, oxygenation needs and soon). Therefore, during handoff, communication skills and handoff quality are critical for the patient's overall safety (Rossell, 2018).

### 2.1 Significance of study:

Continuity of care and patient safety largely rely on quality handoff reports as a method of effective communication competence that ensure accuracy and completeness of exchange information among nurses. For the incoming nurse, inefficient handoffs breed frustration and discontent by raising questions about the patient's health and undermining the ability to advance their care plan (Oreilly, 2018).

According to The Joint Commission, communication issues can be directly linked to an increase in patient care errors, with misunderstanding occurring during the handoff process accounting for over 80% of all medical errors. In the US, there are about 400,000 avoidable fatalities every year, many of which are caused by misunderstandings. The prevalence of communication errors that result in death emphasizes the need for increased oversight of communication in healthcare organizations (Makery, 2016).

As well as, A safe report is one that has easily accessible information, is free of information loss and communication issues, according to the Institute of Medicine (IOM), which highlighted handoff reports as a susceptibility area for errors to occur (Superville, 2017).

### 2.2 Aim of the study

This study aims to explore nurses' communication competence of handoff and its relation to quality of handoff reports at Fakous central hospital.

### 2.3 Research questions:

**RQ1:** What are the perceived communication competences of nurses staff (incoming versus outgoing) during handoff report?

**RQ2:** What are the handoff quality as perceived by nurses (incoming versus outgoing nurse)?

**RQ3:** What is the relationship between nurses communication competence and quality of handoff report at Fakous center hospital?

### **3. Methods**

#### **3.1 Research design:**

A descriptive cross sectional design was utilized.

#### **3.2 The study setting :**

The study will be conducted at Fakous central hospital that offers a variety of health services in Fakous. Fakous central Hospital occupied with 238 beds and it consists of many building. The main building contains five floors and the other buildings in the hospital contains outpatients building, dialysis building, blood bank building, new emergency building, chest building and viral hepatic building.

#### **3.3 Participants of the study:**

A convenience sample of (151) nurses (incoming nurses (76) nurses and outgoing nurses (75) nurses) who are allowed to participate in the study and are available when the data is being collected at Fakous central Hospital.

#### **3.4 Tools of data collection:-**

Two tools were utilized for data collection:

#### **Tool (I) Nurse Communication Competence Scale:**

It was developed by (Cegala, Coleman & Turner, 1998) and modified by (Streeter, Harrington & Lane, 2015) used to measure self and peer competence among incoming and outgoing nurses roles. It consists of two parts:-

**Part (1):** Personal characteristics of nurses such as (gender, age, years of experience, marital status and educational qualification).

**Part (2):** Nurses rate themselves for communication competence of handoff and their counterpart (peer) which divided into two portion:-

A-That done by (incoming nurses) to rate herself and her handoff counterpart (peer) competence : It consists of (48) items, in which the incoming nurses completed ( 21) items concerning his / her self-competence which cover four dimensions (information giving (4) elements – information seeking (5) elements - information verifying (5) elements - socioemotional communication (7 ) elements) and incoming nurse rated her handoff counterpart (peer competence) which consist of

(27) items which cover four dimension (information giving (10) elements – information seeking( 5) elements - information verifying (5) elements - socioemotional communication ( 7 )elements).

B-That done by (outgoing nurses) to rate herself and her handoff counterpart (peer) competence: It consists of 48 items, in which the outgoing nurses completed (27) questions concerning his / her self-competence which cover four dimension (information giving( 10 ) elements –information seeking (5) elements - information verifying (5) elements - socioemotional communication (7) elements) and outgoing nurse rated her handoff counterpart (peer competence) which consist of 21 item which cover four dimension (information giving (4) elements –information seeking (5) elements - information verifying (5) elements - socioemotional communication (7 ) elements). The items of the scale are rated on five –point Likert scale rating from 1 to 5 (strongly disagree (1) - disagree (2) - neither agree or disagree (3) - agree (4) - strongly agree (5).

The scoring system for portion (A) of communication competence based on cutoff point ranged from (21-105) and was categorized into three levels as the following:

- Low level of communication competence during handoff reporting (<50%) (Scored from 21-52).
- Moderate level of communication competence during handoff reporting (50%-75%) (Scored from 53-78).
- High level of communication competence during handoff reporting (>75%) (Scored from 79-105).

The scoring system for portion (B) of communication competence based on cutoff point ranged from (27-135) and was categorized into three levels as the following:

- Low level of communication competence during handoff reporting (<50%) (Scored from 27-67).
- Moderate level of communication competence during handoff reporting (50%-75%) (Scored from 68-101).
- High level of communication competence during handoff reporting (>75%) (Scored from 102-135).

### **Tool (II) Manser Handover Quality Rating**

#### **Tool:-**

It was developed by (Manser, 2012) to measure the quality of the nurse-to-nurse handoff. It is composed of (18 statements) that measures the four criteria for a quality handover, as specified by the author. It include: the conduct of the handover (7 items) - nurse teamwork (5 items) - handover quality (4 items) and circumstances of the handover (2 items). The scale rated on a 5 point Likert scale, 1 to 5 (strongly disagree (1) – disagree (2) - neutral (3) – agree (4) - strongly agree (5).

The scoring system of Handover Quality Rating Tool as perceived by incoming nurse and outgoing nurse based on cutoff point ranged from (18-90) and was categorized into three levels as the following:

-Poor level of handover quality as perceived by nurses (19.9%) (Scored from 18-44).

- Average level of handover quality as perceived by nurses (23.8%) (Scored from 45-67).

- Good level of handover quality as perceived by nurses (56.3%) (Scored from 68-90).

#### **3.5 Validity of the study tools:**

It checked for validity of face and content; a five-person expert panel from the the Faculty of Nursing at Mansoura University who revised the tools after translation to Arabic and according on their feedback, improvements were made for clarity, relevance, applicability, completeness, understanding, and simplicity of implementation.

#### **3.6 Reliability of the study tool:**

Reliability test of the study tools; Nurse Communication Competence questionnaire and Manser Handover Quality questionnaire were tested by Cronbach's Alpha reliability was computed and found that the reliability of the scales are Communication Competence of Handoff of incoming nurse ( $\alpha = 0.70$ ). Communication Competence of Handoff of incoming nurses' counterpart (peers) ( $\alpha = 0.92$ ). Communication Competence of Handoff outgoing nurse ( $\alpha = 0.71$ ). Communication Competence of Handoff of outgoing nurses' counterpart (peers) ( $\alpha = 0.91$ ). Handoff quality ( $\alpha = 0.85$ )

#### **3.7 Pilot study:**

A Pilot study was conducted on 15 nurses (10%) of the study sample to test the feasibility and clarity of the statement and to determine the time needed to fill-in questions nurses. Participants in the pilot trial were not included in the primary study sample. According on the results of the pilot

study, clarification and rewording are necessary modifications.

#### **3.8 Ethical consideration:**

The Mansoura University Faculty of Nursing's Research Ethical Committee gave ethical approval. The accountable hospital administrator granted official approval for the study to be carried out. After explaining the study's purpose and nature to the nurses, their informed consent was acquired. All participants were made aware that participation in the study was voluntary and that they might leave at any time. All participants received guarantees about the confidentiality of the data acquired, as well as the privacy of the study sample.

#### **3.9 Data collection:**

The process of gathering data lasted four months, beginning in January 2022 and ending in April 2022. The researcher gathered data through distributing questionnaire to each subject in the study during work hours at three shifts. The study's aim and how to complete tools was explained by the researcher. 10-15 minutes was given to fill the questionnaire sheet. The number of collected questionnaire sheets from nurses per day ranged from 2-3 sheets. The researcher went to hospital three days per week. Nurses filled the questionnaire sheets in the existence of the investigator to make sure all queries are responded.

#### **3.10 Statistical analysis:**

Using SPSS software, the gathered data were arranged, tabulated, and statistically examined (Statistical Package for the Social Sciences, version 25, SPSS Inc. Chicago, IL, USA). The presumption of normality was acknowledged. As a result, frequency and percentage were used to describe categorical data. The mean and standard deviation were used to represent continuous variables. The difference between two means of continuous variables for unrelated groups was examined using an independent t-test. . The difference between two means of continuous variables for related groups was examined using a paired t-test. The chi-square test was used to examine the relationship between categorical variables as well as the differences between two categorical variables of unrelated groups. The connection between two continuous variables was evaluated using the Pearson correlation coefficient test. The criteria for statistical significance were (p-value 0.05 & 0.01).

#### **4. Results:**

**Table (1):-** Show personal characteristic of the studied nurses. The table revealed that (58.3%) of total studied nurses were aged 20-30years old;

the majority (86.1%) of them were female and (76.8%) of them were married. Regarding educational level, (66.9%) of them were technical degree, and (37.7%) of them were had experience from (1-5) years.

**Table (2):** Show communication competence during handoff reporting between incoming nurses versus outgoing nurses. The table showed that highly statistical significant differences between incoming and outgoing nurses regarding information giving, information seeking and total communication competence; outgoing nurses had the highest mean score(42.84±11.04)&(108.88±27.66) about information giving and total communication competence respectively than incoming nurses, while incoming nurses had the highest mean score (20.09±7.15) about information seeking than outgoing nurses.

**Table (3):** Mean score of handoff quality between incoming nurses versus outgoing nurses. The table showed there is no statistical significant differences between incoming and outgoing nurses about handoff quality.

**Table (4):** Relation between total communication competence levels during handoff and levels of quality handoff report among the studied nurse. The table showed that there was highly statistically significant positive relation between total communication competence levels during handoff and total quality of handoff report among total studied nurse.

**Figure (1):** Illustrates correlation between total communication competence during handoff and total quality of handoff report among the studied nurses. According to this result showed that there was highly statistically significant positive correlation between total communication competence during handoff and total quality of handoff report among total studied nurses.

#### **5. Discussion:-**

The communication and transmission of accurate and complete information between the outgoing and incoming nurses during the handoff is crucial to the proper delivery of high quality of care to the patients, ensure patient care continuity and the efficacy of the existing care strategy. The handoff is a type of reporting that enables the outgoing nurse to summarize the information required for the incoming nurse (**Forde, Coffey & Hegarty, 2020**).

As well as, the quality handoff, include the passing of care-related duties from one nurse to another and it is an integral component of communication competency (**Galatza &**

**Carrington, 2018**). Therefore, this study aimed to explore nurses' communication competence of handoff and its relation to quality of handoff reports at Fakous central hospital.

The result of the study showed that highly statistical significant difference between incoming and outgoing nurses regarding mean score of information - giving, information - seeking and total communication competence; outgoing nurses had the highest mean score about information giving and total communication competence respectively than incoming nurses. This may due to the outgoing nurse is in a position of control because they have the knowledge necessary for the incoming nurses to take over the care of patients successfully and efficiently, and the outgoing nurse does share some of that duty. Information supplying an aspect that offers a more extensive explanation of how to response inquiries, implying that nurses must be able to be honestly and fully address one another's inquiries.

The study result agree with the study conducted by **Thomson, Tourangeau, Jeffs & Puts, (2018)** who determined factors influencing quality of nurse shift handoff and communication competence in the emergency department at Ontario, Canada and result showed that the outgoing nurses reported the highest mean score toward information giving and total communication competence than the incoming nurses.

In addition, the study result agree with the study conducted by **Lavoie et al., (2020)** that aimed to assess if the assessments of the risk of worsening after handoff are consistent among incoming and outgoing nurses and nurses communication effectiveness then compare these judgments to commonly used early warning score at hospital in Montreal, Canada. The study revealed that the role of outgoing nurse in information giving during handoff ranked the information giving the highest mean score than incoming nurses.

On the other side, this result inconsistent with the study conducted by **Rahmawati, Satria & Purnaningsih, (2018)** about change of shift nursing Handoff Interruptions and its relation to nurses' communication competence. The study showed that safety of patient culture has no significant variation between work unit of nursing mean and the role of the nurses especially outgoing nurses, which had highest mean score in socio emotional communication while, leadership and education have a big impact on the culture of patient safety. The study result showed that

incoming nurses had the highest mean score about information seeking than outgoing nurses.

The study conducted by **Song, Choi & Son, (2017)** determined the relationship between professional communication competences and nursing performance of critical care nurses in South Korea and reported that the incoming nurses evaluated the information - seeking mean score higher than the outgoing nurses. as well as the researcher discovered that incoming nurses perceived information seeking activities as being more crucial than outgoing nurses.

On the other side, this result inconsistent with the study conducted by **Honda et al., (2022)** the study reported that the incoming nurses Information seeking received worse ratings than the outgoing nurses and concluded a little cooperation between nursing peers; rather, the incoming nurse's function seemed to be only receiving information rather than being an active collaborator actively searching out more information throughout the report.

The study result reported that there is no statistical significant differences between incoming and outgoing nurses about mean score of handoff quality. This may indicate to the importance of quality handoff in both the incoming nurses and outgoing nurses due to the effective handoff facilitating the successful transition. Therefore, there were no statistically significant differences between the incoming and outgoing nurses related to the mean score of handoff quality as el as, the handoff followed a logical structure, the incoming and outgoing nurses wore uniforms, the outgoing nurses used documentation (patient charts, report forms), and two nurses (incoming-outgoing) were present at the patient's bedside.

The study result agree with the study conducted by **Shahid & Thomas, (2018)** about situation, background, assessment, and recommendation (SBAR) communication tool for handoff among incoming and outgoing nurses in health care. The study showed that no statistical significant differences between incoming and outgoing nurses regarding score of handoff communication and the study revealed that there is positive relationship between incoming and outgoing nurses.

In addition, the study result agree with the study conducted by **Hada, Coyer & Jack, (2018)** that explored nursing mistake rates were monitored in order to assess the effectiveness of the intervention and to enhance the handoff process between incoming and outgoing nurses and the

study reported there was no statistical significant differences between incoming and outgoing nurses about mean score of handover quality. Moreover, the study ensured the importance of the role of the incoming and outgoing nurses in improving handoff process.

Disagreement with the present result; the study conducted by **Abraham et al., (2016)** about characterizing the structure and content of nurse handoffs: a sequential conversational analysis approach between incoming and outgoing nurses. The study result showed that statistical significant differences between incoming and outgoing nurses toward quality handoff and these differences due to incompetent incoming nurses.

The study result showed that there were highly statistically significant relation between communication competence levels during handoff and level of quality handoff report among total studied nurses. This may due to the patient's condition was properly taken into consideration throughout the handoff, the documentation was complete, and too much information was supplied and requested. The team also ensured that the handover was complete and documented by working together. As well as, the quality of handoff depend on the accurate, complete and comprehensive information.

The study result agree with the study conducted by **Blazin, Sitthi-Amorn, Hoffman & Burlison, (2020)** that aimed to improve nurses' communication competence, patient handoffs and transitions by modifying and putting I-PASS into use in various handoff circumstances. The study showed that highly statistically significant relation between communication competence levels during handoff, patient handoffs and transition between nurses.

Moreover, the study result at the same line with the study conducted by **Smeulers et al., (2016)** about Safe and effective nursing handoff to become competent nurses . The study showed that highly statistically significant relation between safe and effective nurses handoff level and nurses competences of communication during handoff.

At the same line the study conducted by **Müller et al., (2018)** to determine the effect of the patient hand-off tool SBAR and communication skills on patient safety. Result of the study showed that statistical significant relation between nurses' communication competence level and patient hand-off level and their relation in patient safety.

The study result disagree with the study conducted by **Rhudy et al., (2019)** about

change of shift nursing handoff interruptions and its relation to nurses' communication competence: implications for evidence-based practice. The study showed that no statistical significant relation between change of shift nursing handoff interruptions level and nurses' communication competence level.

In addition, the present result showed that there was highly statistically significant positive correlation between total and all dimensions of communication competence during handoff with total and all dimensions of quality of handoff report among incoming, outgoing nurses, and total studied nurses. This may due to the incoming and outgoing nurses provide accurate, comprehensive information through information giving, seeking and verifying during handoff, follow logical handoff and team work between nurses.

The study result similar to the study conducted by **Onyemaobi-Agboli, (2021)** about use of effectiveness handoff communication tool in post-acute rehabilitation unit. the study showed that highly statistically significant positive correlation between total and all dimension of effectiveness communication in addition total and all dimension of standardized handoff.

On the other hand, **Wang et al., (2022)** study about Correlation between the nurses' communication competence, quality of nursing handoff, both group cohesion and job satisfaction among nurses disagreement with the present study and reported that there were statistically significant negative correlation between total and all dimensions of nurses' communication competence and quality of nursing handover among nurses and that reflected on job satisfaction, and group cohesion among nurses.

#### **6. Conclusion:**

The incoming and outgoing nurses had the high level of communication competence than their peers. No difference present between incoming versus outgoing nurses regarding level of handoff off quality and most of them had good perception toward handoff quality levels. Communication competence during handoff affect positively the quality of handoff report among incoming and outgoing nurses.

#### **7. Recommendations:**

**Based on the findings recommended to:**

##### **Recommendations to faculty of nursing**

- The method that information is presented, validated, and all other handoff communication competences should be

properly taught during nursing academic education.

- Introducing SBAR tool in the curriculum of nursing administration practice.

##### **Recommendations to Hospital administration and nursing director:**

- Establishing work settings that enable truthful and helpful, communication, enhance team relationships, free from noise, and no visitors during nurses' handoff.
- Designing training program and workshops about communication competence during handoff and quality handoff report.
- Apply logical structure of handoff through the incoming and outgoing nurses wear their uniform during handoff, handoff should be bedside the patients, the outgoing nurses had the medical record of patients and the incoming nurses do checklist of handoff.
- Print checklist contain elements of handoff and communication competence and incident report form
- Form team to monitor documentation of nurses' handoff quality and take suitable action to overcome errors and handoff problems.

##### **Recommendations to incoming and outgoing nurses:-**

- Participate actively in the communication event of handoff through giving and receiving information about the patients' conditions.
- Communicating the outgoing nurse to the patient through introducing the incoming nurse to patient that making trust and respect for the incoming nurse and patient.
- Continues education about quality handoff and communication competence to improve their perception.
- Participate actively in training program and workshops about SBAR handoff tool and communication competence during handoff.

##### **Future studies:-**

- Use larger sampling numbers assess the effectiveness of handoff communication skills on patient safety and healthy outcomes.

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Table (1): Personal characteristics of the studied nurses (n=151)

Characteristics	Total nurses (n=151)		Incoming nurses (n=76)		Outgoing nurses (n=75)	
	N	%	N	%	N	%
Age years						
▪ 20-30	88	58.3	51	67.1	37	49.3
▪ 30-40	60	39.7	25	32.9	35	46.7
▪ >40	3	2.0	0	0.0	3	4.0
Mean ±SD	30.02±4.81		28.76±4.28		31.33±4.98	
Gender						
▪ Male	21	13.9	7	9.2	14	18.7
▪ Female	130	86.1	69	90.8	61	81.3
Marital status						
▪ Single	27	17.9	14	18.4	13	17.3
▪ Married	116	76.8	57	75.0	59	78.7
▪ Divorced	5	3.3	3	3.9	2	2.7
▪ Widowed	3	2.0	2	2.6	1	1.3
Level of education						
▪ Diploma degree	9	6.0	6	7.9	3	4.0
▪ Technical degree	101	66.9	56	73.7	45	60.0
▪ Bachelor degree	41	27.2	14	18.4	27	36.0
Experience years						
▪ 1-5	57	37.7	30	39.5	27	36.0
▪ 6-10	51	33.8	28	36.8	23	30.7
▪ >10	43	28.5	18	23.7	25	33.0
Mean ±SD	8.10±5.13		7.75±5.04		8.45±5.25	

Table (2): Communication competence during handoff reporting between incoming nurses (n=76) versus outgoing nurses (n=75)

Communication competence subscales	Incoming nurses	Outgoing nurses	T	P
	mean ±SD	mean ±SD		
A. Information giving	11.43±4.57	42.84±11.04	2.87	0.000**
B. Information seeking	20.09±7.15	15.53±3.21	5.04	0.000**
C. Information verifying	19.18±8.13	20.62±6.67	1.19	0.24
D. Socio-emotional communication	29.38±7.84	29.88±7.65	0.39	0.69
Total communication competence	80.09±26.22	108.88±27.66	6.56	0.000**

\*\* Highly statistically significant (p ≤0.01)

Table (3): Mean score of handoff quality between incoming nurses (n=76) versus outgoing nurses (n=75)

Handover quality subscales	Incoming nurses	Outgoing nurses	T	P
	mean ±SD	mean ±SD		
A. Conduct of the handover	21.17±6.06	22.25±4.91	1.20	0.23
A. Teamwork	14.32±4.49	15.18±3.41	1.33	0.18
B. Handover quality	12.98±4.73	13.78±3.75	1.15	0.25
C. Circumstances of the handover	3.03±1.60	3.44±2.30	1.28	0.20
Total handover quality	51.50±15.17	54.67±10.61	1.48	0.14

\* Highly statistically significant (p ≤0.05)

Table (4):- Relation between total communication competence levels during handoff and level of quality handoff report among total studied nurse (n=151)

Handover quality levels	Total	Communication competence levels						$\chi^2 / p$
		low		moderate		high		
		N	%	N	%	N	%	
A. Poor	30	22	73.3	8	26.7	0	0.0	139.06/ 0.000**
B. Average	36	5	13.9	16	44.4	15	41.7	
C. Good	85	0	0.0	0	0.0	85	100.0	

\*\* Highly statistically significant ( $p \leq 0.01$ )

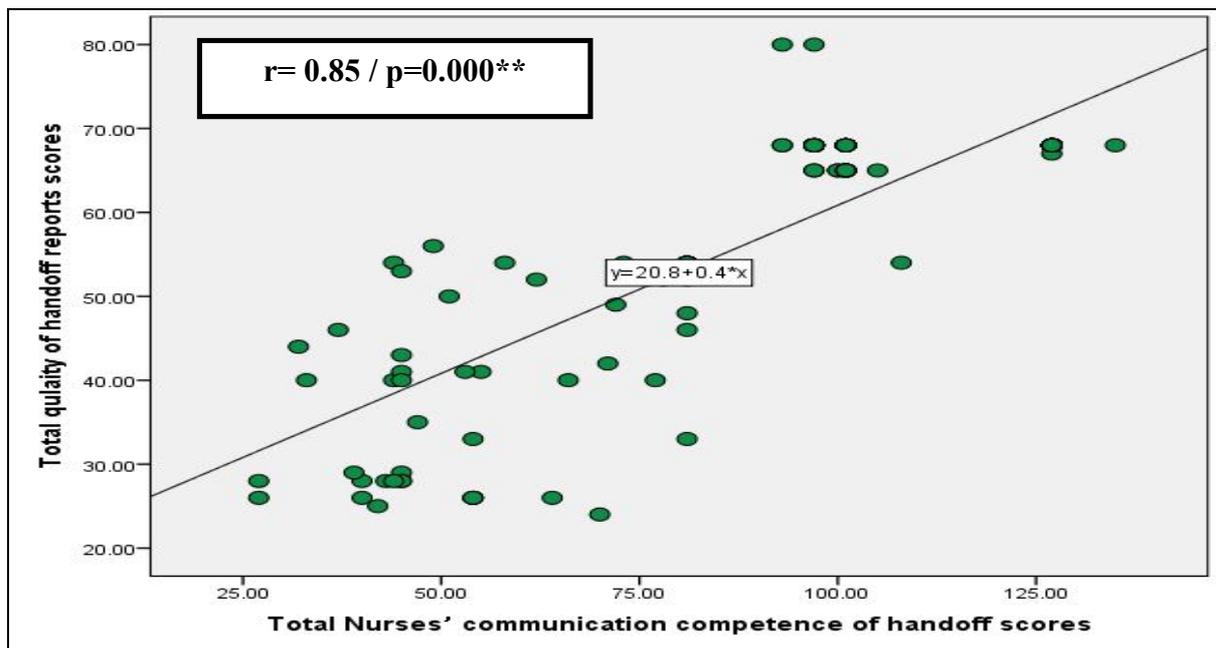


Figure (1):- Correlation between total communication competence during handoff and total quality of handoff report among total studied nurses (n=151)