Relationship between Nursing Students' Emotional Intelligence and Communication Skills during the Conduction of Health Education

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Abstract

Background: Nursing students deal with clients with different cultures, religions, emotions, desires, needs and beliefs. This diversity of clients' personalities is considered as a barrier that nursing students might face during the conduction of health education. To overcome these difficulties, nursing students need to be competent in soft skills to become effective health educators. Aim: this study aims to determine the relationship between nursing students' emotional intelligence and communication skills during the conduction of health education. **Research design:** Descriptive correlational research design was followed in the present study. Study setting: The study was conducted at different community health nursing clinical settings at Faculty of Nursing, Alexandria University. Study tools: two tools were used for data collection, namely: Tool I: Communication Skills Observational Checklist (CSOC), Tool II: Trait Emotional Intelligence Questionnaire Short Form (TEIQueSF). Study subjects: The study subjects consisted of 210 undergraduate nursing students in the fourth level, who were enrolled at the clinical training at Community Health Nursing Department during the academic year 2021-2022. *Result*: There was a significant positive, strong and parallel relationship between study subjects' EI skills scores and their CS scores (P<0.036). Conclusion: Soft skills are key elements for nursing students to convey caring attributes during the conduction of health education. *Recommendation*: Emotional intelligence concept should be integrated early at the first level into the nursing curriculum.

Keywords: Emotional Intelligence, Communication Skills, Health Education, Nursing Students.

Introduction

Nursing is a stressful profession, especially for community health nurses who are responsible for a variety of tasks in promoting community health, increasing health literacy and raising people's awareness. Health education is one method in which these tasks can be applied (Salmond & Echevarria.,2017). Health education is a continuous process that aids individuals in gaining knowledge, skills and attitudes (WHO, 2017).The main goal of health education is to provide patients with complete and up-to-date information tailored to their specific health requirements (Fathi & Abdul-Aziz., 2015). Nursing education field is responsible for preparing competent nursing students with knowledge and helping them to develop soft skills for their vital roles in the clinical practice. These soft skills like communication, emotional intelligence, teamwork, problem solving, time management, critical thinking, decision-making, stress management, conflict resolution and leadership skills are necessary in order to meet the demands of the nursing workforce (Mannino &Cotter., 2016).

Emotional intelligence (EI) and communications skills (CS) are the most needed abilities and shown as the main traits for health teaching process and played a crucial role in the success of the nursing students as health educators. EI in nursing can be defined as the nurse's constructive ability to demonstrate and facilitate self-awareness, self-management, social awareness and social relationship management with others. (Salem et al, 2018). Thus, emotional intelligence in the nursing profession is a critical skill for conducting competent nursing practice. It assists nurses in developing a stronger relationship with their patients, interpreting patients' emotions whether it is anger, pain, joy or sadness, achieving a better work-life balance and resolving work issues more effectively and with creativity (Easa., 2021).

Furthermore, one of the most important talents in the field of nursing practice, particularly for health educators, is excellent communication. Communication skills are the ability to convey information, ideas, emotions, and thoughts in order to enhance patient health outcomes. CS are include both verbal and nonverbal skills that enable nurses to use spoken words and body language to convey warmth, empathy, compassion, reassurance and support to patients (Chutka & Berman., 2016).

Communication is a critical tool in health education process to make sure that the caregivers and the patients and their families are well educated about the updated information of the clients' disease and health condition to engage them in decision-making and remove incorrect perceptions and beliefs (Gomes, et al., 2016). Communication is a key to relieving negative emotions such as stress and anxiety experienced by patients (Biasibetti, et al., 2019).

Hence, having effective EI&CS is extremely important for health educator's role. (Balat, et al., 2019). Unquestionably, emotional intelligence plays a vital role in therapeutic communication and vice versa. Helping nursing student's gain the capacity to understand and control one's own and others' emotions will help them build meaningful communication relationships. EI increases awareness of nurses' emotional response that affects their verbal and non-verbal communication. Therefore, they are able to communicate clearly and with confidence (Marzuki, et al., 2015).

Aims of the Study

Determine the relationship between nursing students' emotional intelligence and communication skills during conduction of health education.

Research questions

-What are the emotional intelligence skills levels among nursing students during conduction of health education ?

-What are the communication skills levels among nursing students during conduction of health education?

-What is the relationship between emotional intelligence and communication skills among nursing students during conduction of health education?

Materials and Method Materials

Design: A descriptive correlational research design was used, Settings: The study was carried out in five different community health nursing clinical settings: family's health services, school-based settings, occupational ambulatory health settings. settings (outpatients' clinics such as skin and diabetic clinic) and community-based health awareness conveys. These were the enrollment areas of clinical practice for community health nursing course at Faculty of Nursing, Alexandria University, Egypt. Subjects: The study subjects consisted of 210 undergraduate nursing students in the fourth level, who were enrolled at the clinical

training at Community Health Nursing Department during the academic year 2021-2022 the sample size was estimated using epidemiological information 7.0 statistical program, using the following parameters:

- Population size =455 students
- Expected frequency=50%
- Acceptable error=5%
- Confidence coefficient (CC)=95%
- Minimum sample size=209 students
- The estimated final sample size of students is 210 students.
- By using equal proportional allocation method, 42 students were selected using a systematic random sampling from each previously mentioned main setting.

Tools: In order to collect the necessary data for the study two tools were used:

Tool I: Communication Skills Observation Checklist (CSOC):

This tool was developed by Bayer-Fetzer (2001). It was modified by (Fathi., 2011) to assess nursing students' communication skills during the conduction of health education (Makoul.,2001). This checklist consists of seven dimensions: building a relationship (eight statements), opening discussion (six statements), gathering information (five statements), accepting client's perspective (six statements), sharing information (five statements), reaching agreement (four providing statements) and closure (six statements). This tool consists of 40 statements that are measured using a 5 points likert scale which ranges from excellent (5) to poor (1). The total scoring system of this scale ranges from 40 to 200 distributed as follows: low level of communication skills = $40 \ge 119$, moderate level of communication skills = $120 \ge 159$, high level of communication skills = $160 \ge 200$.

Tool II: Trait Emotional Intelligence Questionnaire Short Form (TEIQSF):

This tool was developed by (Petrides & Furnham., 2001), It is a self-report questionnaire, the tool was adapted by the researchers to be congruent with the study aim, to assess the levels of emotional intelligence among undergraduate

nursing students during the conduction of health education after a thorough review of related literature (Shipley, et al., 2010; Fathi, et al., 2015). This tool translated into Arabic language. This questionnaire is consists of 30 statements against a five-point likert-type scale ranging from strongly agree = 5, to strongly disagree = 1. There twenty-six statements covering are four dimensions: Wellbeing, Self-control, Emotionality and Sociability. Additionally, four statements represent individual Global trait emotional intelligence. The total scoring system of this scale ranges from 30 to 150 distributed as follows: low level of emotional intelligence = 30 \geq 89, moderate level of emotional intelligence = $90 \ge 119$, high level of emotional intelligence = 120 ≥150.

In addition, this tool included a part about nursing student's demographic characteristics and academic data such as age, sex, residence, social status, last GPA and attendance to any practical courses or program about emotional intelligence and communication skills.

Method

from the Research Approval Ethics Committee of the Faculty of Nursing was obtained. An official approval was obtained from the head of Community Health Nursing Department, Faculty of Nursing, Alexandria University, Egypt. The tools were submitted to a jury of seven experts from faculty members in departments different nursing (Nursing Education, Community Health Nursing and Psychiatric Nursing) to be tested for their face and content validity and accordingly the necessary modifications were done. A pilot study was carried out and all needed modifications were done. The tools were statistically tested for their reliability using Cronbach Alpha Coefficient statistical test. Tool I, R=0.876 and Tool II, R=0.799 which indicated high reliability. The data was collected during the academic year 2021-2022 over a period of six months starting from November 2021 to April 2022.

The data was conducted through these steps:

- 1- At the beginning of each clinical rotation, the researcher introduced self and explained the overall aim of the study to the study subjects.
- 2- The researcher observed the nursing students on individualized base, for their

communication skills during their conduction of health education session for 20-30 minutes at the clinical training settings by using tool I.

3- Immediately after the session, the researcher provided the self- report emotional intelligence questionnaire (Tool II) to the nursing student participant.

Ethical considerations:

A written informed consent from each study subject was obtained after the explanation of the study aim. Witness consent was obtained from the head of Community Health Nursing Department for observation of the students during conducting health education session at clinical training settings. The study subjects were ensured their participation into the study was voluntary and they could withdraw from the study without any penalties in their clinical training grading.

Statistical Analysis

Data was coded and analyzed using SPSS software package, version 28.0; IBM, 2019). Descriptive data were calculated by mean ± standard deviation, numbers and percentages. These tests were used: One-way ANOVA: Post Hoc Multiple Comparison Tukey's Honest Significant Difference (HSD).Pvalues of 0.05 or less were considered statistically significant.

Results

Table (1) Study subjects' demographic characteristics and their academic data, reveals that study subjects' age ranged from 18 to 24 years with a mean of 21.6±0.94 year. About two-thirds of them were females. The vast majority lived in urban areas and single. For last GPA, more than one half (60.0%) had "very good grades". About work status while studying, about two fifths (43.8%, N = 92) of them were working and the majority of those working students were working in nursing. Moreover, more than one-half (56.2%) of the study subjects did not attend any courses or training about communication skills and the majority (89%) did not attend any courses or training about emotional intelligence skills before the conduction of health education.

Table (2): Study subjects' emotional intelligence skills levels during conduction of health education. It shows that, more than onehalf (56.7%) of the nursing students had moderate level of EI pertaining wellbeing dimension with a mean score (3.47 ± 0.29) . About two thirds (64.8% & 65.7%) of them also had moderate level of EI concerning selfcontrol and sociability with mean scores $(3.36 \pm 0.27 \text{ and } 3.41 \pm 0.27 \text{ respectively}).$ Furthermore, in Emotionality, around three quarters (74.8%) of the study subjects had the same moderate level of EI with a mean score (3.47 ± 0.27) . As well, for the global trait, around two thirds of the nursing students (61.4%) with a mean score (3.38 ± 0.26) had moderate level of EI over all of the global traits' dimensions. Therefore, this table reveals that, more than three quarters (74.8%)of the study subjects had moderate level of total EI skills scores with a mean score (3.48± 0.25).

Table (3): Study subjects' communication skills levels during conduction of health education. It indicates that about half (56.2% & 49%) of the study subjects had high level of CS scores in building a trustful relationship and in information gathering skills with mean scores (4.36 ± 0.43 and $4.25 \pm$ 0.39 respectively). Moreover, about half (52.9% & 43.8%) of the participants had moderate level of CS scores in opening discussions with clients and showing them acceptance and respect with mean scores $(3.48 \pm 0.23 \text{ and } 3.24 \pm 0.25 \text{ respectively})$. On the other hand, more than one half (50.5%) of the study subjects had low level of CS scores in information sharing skills, represented by low mean score (2.35±0.46). Additionally, more than three quarters (77.1% and 79.0%) of the study subjects also had low level of CS scores in reaching agreement and providing closure with low mean scores (2.05 ± 0.48 and $2.04\pm$ 0.46 respectively). In addition, this table reveals that, near two-thirds (61.9%) of the study subjects had moderate level of total CS scores with a mean score (3.39 ± 0.27) .

Table (4): Relationship between studysubjects' emotional intelligence skills scoresand their communication skills scores during

conduction of health education. it clarifies that there is a statistically significant positive (parallel) relationship between study subjects' EI skills scores and their CS scores, (P<0.036). The comparison was done using One-way ANOVA: Post Hoc Multiple Comparison Tukey's Honest Significant Difference (HSD).

Discussion

Soft skills are the heart of nursing and are of paramount importance for community nursing students to convey caring attributes and integrate between acquired knowledge, skills and attitudes during conduction of health education. For answering the first question of the present study, revealed that more than three quarters of the fourth-level nursing students who were enrolled in the clinical training at Community Health Nursing Department during conduction of health education had moderate level and less than one-tenth of them had high level of all EI dimensions which are wellbeing, self-control, emotionality and sociability. These results can be justified by the fact that the nursing students studied multiple courses, including fundamentals of psychology, communication skills and human relations and critical thinking. Also may be due to clinical teamwork. which help in preparing professional nurses, increasing awareness of their emotional requirements, and increasing abilities to understand themselves their correctly. These results are in congruence with those obtained by Mahmoud, et al., (2013) which showed that the majority of the studied students, in the eighth semester at the faculty of nursing, had moderate levels of EI. The results of Holston & Taylor., (2016) also revealed that third and fourth academic year nursing students had moderate EI levels. In addition, these findings match with those of Snowden, et al., (2015); Štiglic, et al., (2018) which showed that nursing students had higher levels of EI as compared to students of other specialties.

Concerning the first element of EI, wellbeing, the results of this study clarified that more than one-half of the community

nursing students had moderate level and nearly one third of them had high level. These results may be due to nursing students' satisfaction with their clinical performance and the guidance received from instructors, which positively impacts their thinking across different challenges faced. These findings are similar to those of Kumar, et al, (2022) which indicated that students who choosed a nursing career had a moderate level of wellbeing compared to other students in different specialties. However, this is incongruent with the study done by Tung, et al., (2018) who established that nursing students had a high prevalence of depression and negative emotions like sadness and hopelessness toward clinical situations.

Regarding self-control, the present study showed that about two thirds of the community nursing students had moderate level of self-control and more than one-tenth had high level. Perhaps the reasoning for this is the nursing students' ability to stay calm, positive, regulate performance and cope well with stressful situations, and use different techniques for stress management such as slow and deep breathing exercises. These results are in harmony with the studies conducted by Fathi, et al., (2015), and Thomas& Natarajan., (2017) which revealed that nursing students had high levels of selfcontrol, which meant that they are able to control impulse and needs effectively. In contrast to the present study, Babaei & Alhani., (2018) conveyed that nurses had low levels of self-control during clinical work.

Regarding emotionality, the present study revealed that around three quarters of the community nursing students had moderate scores in emotionality. These results can be justified by the fact that nursing students are able to effectively express their emotions in words, accurately identify others' emotions in different situations, understand and empathize with others' points of views without making judgments. These results are in line with those of Lalonde & Mcgillis., (2017) and Khalifa, et al., (2021) which revealed that nursing students had a wide range of emotion-related skills such as recognizing internal emotions, perceiving emotions and expressing emotions. In contrast to this study, Cheshire, et al., (2020) displayed that the ability of nursing students to understand, recognize and analyze their emotions and those of others during clinical practice was low.

Concerning the sociability dimension, the results of the current study indicated that about two thirds of the community nursing students had moderate levels of sociability skills. These results may be related to the ability of nursing students to interact successfully with other people beyond their own personal relationships with family and friends. These findings are in line with the study of Christine, et al., (2022) which reported that nursing students had moderate levels of sociability, which meant that they are able to build therapeutic relationships, and create favorable social interactions. In contrast with the present study, Feher, et al., (2019); and Valenti., et al, (2021) reported that the sociability factor had lower value among nursing students.

For the second question, the result revealed that the majority of the fourth-year nursing students who enrolled in the clinical training at Community Health Nursing Department during conduction of health education had moderate CS scores. These results may be related to the fact that nursing students' attended communication skills courses and were taught different CS techniques during their previous three academic years in different clinical settings. These results are in agreement with the study done by shafakhah, et al., (2015) which showed that nursing students had moderate clinical communication abilities with patients, families and others. In contrast, the study done by Abd -El havez, et al., (2016) illustrated that the nursing interns had poor scores in verbal CS and were unprepared for the depth of CS requirement in clinical work.

Concerning building a trustful relationship, the majority of the study subjects had high mean scores. These results may be due to the ability of nursing students to support patients, maintain positive first impressions, be honest and welcoming and use nonverbal CS such as eye contact. These findings are in harmony with the study of Palaz & Kayacan., (2022) which reported that nursing students had high levels in developing trustful relationships with patients, which improved the patients' perceptions of nursing care. On the other side, mukovozov& baribea., (2012) and Brown, et al., (2017) stated that the nursing students were unable to provide patient-centered care because they had poor levels of establishing trustful relationships with their patients.

About opening discussions, the majority of the study subjects had moderate mean scores. The reasoning for this might be the ability of community nursing students to clarify the goals of the teaching sessions, create a conducive learning environment, being knowledgeable and well trained to communicate confidently with caring attitude while dealing with patients. These results are supported by Daif-Allah., (2016) which discovered that students had good levels in opening discussions that can be observed through interactions with clients. However, this is incongruent with the study done by Brown, et al., (2017) which found that nursing students had excellent levels in opening discussions.

In relation to gathering information, the majority of the community nursing students had high mean scores. This may be due to the ability of community nursing students to collect data from clients using the art of questioning, posing open and close-ended questions appropriately, and actively listening. This current study is in line with Peterson, et al., (2014) who showed that the undergraduate and graduate nursing students, during healthcare education programs, had high levels of gathering important data from different clients in clinical settings. Contradictory to the results, the study done by Brown, et al., (2017) stated that nursing students had low levels of gathering information, which negatively affects their clinical interactions with patients.

Regarding students' acceptance of clients and their families' perspectives, the present study revealed that the study subjects had moderate mean scores. This is because of the students' respect of patient's rights in decision-making, acceptance of patients with different cultures and personalities. These results are consistent with Karaca& Durna., (2019) who observed that nursing students had good levels of respectful communication with clients about their disease, health status, investigations and prognosis of their condition, which leads to an increase in clients' satisfaction.

Regarding sharing information, the majority of the nursing students had low mean scores. This can be justified by the fact that nursing students might be unable to balance between listening and responding. It due to that many of the nursing students were unable to use simple language with clear and concise words to ensure patients' understanding or that they did not provide a chance for patients to give their feedback. This current study is in line with Jamshidi, et al., (2016) and Abd-Elmaqsood, et al., (2012) who stated that many nursing students had low levels in information sharing due to inadequate knowledge, deficient practical skills, and fear of providing information. On the other hand, these findings are incongruent with the studies done by mukovozov & baribea., (2012) and Brown, et al., (2017) which revealed that students were good at identifying, organizing and sharing information during communication with clients.

As regards reaching agreement, the present study showed that more than three quarters of the study subjects had low levels. These findings may be due to lack of mutual understanding between nursing students and clients of health messages, clients' lack of readiness to follow treatment plan and participation in decisions agreement on health problems. These results are similar to those of mukovozov& baribea., (2012) & Fukada..(2018) which showed that the students were weak at recognizing patientcentered tasks such as reaching agreement with patients. This study was incongruent with the studies done by Peterson, et al., (2014) and Brown, et al., (2017) which revealed that students had good levels of this dimension, mainly when talking about clients' care and drug options.

Concerning providing closure, the majority of the community nursing students had low mean scores. This can be justified by the nursing students being uninformed and untrained enough about documentation and its significance, forgetfulness to summarize the key points and close the session. The present study was in congruence with a study done by Halse, et al., (2013) and Avsar, et al., (2011) which discovered that the nursing students had low levels in documentation of health education session. Contrariwise, Shafakhah, et al., (2015) demonstrated that nursing students had a moderate ability to close the interaction with the clients effectively by posing some relevant questions to assess their understanding at the conclusion of the clinical communication.

For answering the third question, this study discovered that there is a statistically significant positive (parallel) relationship between them. The mean scores of EI and CS are in similar levels and more or less with similar values. Low mean scores of EI are similar to the low mean scores of CS and the same goes for moderate and high mean scores of EI and CS. According to the present study, as the mean scores of emotional intelligence increase, the mean scores of communication skills also increase. These findings are consistent with those of Erigüç & Köse., (2013) which showed that there was a significant positive relation between communication skills and emotional intelligence among nursing students. Likewise, Cherry, et al., (2014) reported that EI increase associated with more effective is communication. Furthermore, Shokry, et al., (2022) stated that there is a positive and close relationship between EI & CS.

Conclusion

Soft skills are key elements for nursing students to convey caring attributes during the conduction of health education. The study found that community-nursing students had moderate level of EI concerning all EI dimensions: wellbeing. self-control. emotionality, and sociability. Besides, they also had moderate level of CS in general. Therefore, there was a significant positive, strong and parallel relationship between study subjects' EI skills scores and their CS scores. Both emotional intelligence and communication skills assist nursing students in health education since they help nursing students perform their duties successfully, establish a desired bond with clients and better adapt in different clinical settings.

Recommendations

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

- Explore factors that affect the levels of emotional intelligence among nursing students.
- Assessing nursing student's perceptions of soft skills such as EI, CS and problem solving skills.

Acknowledgment

First, of all I thank Allah. Then, I would like to express my gratitude to the researchers who contribute in this study, the Head of Nursing Education, the Head of Community Nursing Department, all the staff members, my dear students who were really wanted to participate in this study, Faculty of nursing, Alexandria University, Egypt and the study subjects nursing students.

 Table (1):
 Study subjects' demographic

 characteristics and their academic data.

demographic characteristics and academic data	No.	%	
Age (Years)		-	
- 18<20	4	1.9	
- 20<22	144	68.6	
- 22≤24	62	29.5	
Sex			
- Male	70	33.3	
- Female	140	66.7	
Residence			
- Urban	190	90.5	
- Rural	20	9.5	
Social status			
- Single	197	93.8	
- Married	13	6.2	
Rotation Settings		-	
- Family's health services	42	20.0	
- School-based settings	42	20.0	
- Occupational health settings	42	20.0	
 Ambulatory settings (as skin and diabetic outpatients clinics 	42	20.0	
- Community-based health awareness	42	20.0	
Last GPA			
- A (Excellent)	1	0.5	
- A- (Excellent)	3	1.4	
- B+ (Excellent)	29	13.8	
- B (Very good)	66	31.4	
- B- (Very good)	60	28.6	
- C+ (Good)	35	16.7	

- C (Good)	12	5.7	
- C- (fair)	4	1.9	
Continue table (1):			
Work status while studying			
- Working	92	43.8	
- Not working	118	56.2	
Socio demographic characteristics	No.	%	
and academic data			
Nature of work	(n.92)		
- In nursing career	80	87.0	
- Others	12	13.0	
Attendance of any courses or program about communication skills			
- Yes	92	43.8	
- No	118	56.2	
Attendance of any courses or program about emotional			
intelligence skills			
- Yes	23	11.0	
- No	187	89.0	

Table (2): Study subjects' emotional intelligence skills levels during conduction of health education. (n=210)

Emotional					
intelligence	No	%	Mean ±SD**		
dimensions scores	140	/0			
Wellbeing					
- Low	28	13.3	2.50 ± 0.43		
- Moderate	119	56.7	3.47 ± 0.29		
- High	63	30.0	4.26 ± 0.27		
Self-control					
- Low	49	23.3	2.54 ± 0.32		
- Moderate	136	64.8	3.36 ± 0.27		
- High	25	11.9	4.15 ± 0.21		
Emotionality					
- Low	28	13.3	2.63 ± 0.24		
- Moderate	157	74.8	3.47 ± 0.27		
- High	25	11.9	4.25 ± 0.21		
Sociability					
- Low	44	21.0	2.55 ± 0.28		
- Moderate	138	65.7	3.41 ± 0.27		
- High	28	13.3	4.29 ± 0.29		
Global traits					
- Low	31	14.8	2.46 ± 0.39		
- Moderate	129	61.4	3.38 ± 0.26		
- High	50	23.8	4.20 ± 0.25		
*Total emotional intelligence skills scores					
- Low	36	17.1	2.79±0.197		
- Moderate	157	74.8	3.48 ± 0.25		
- High	17	8.1	4.18 ± 0.18		

Mean ± SD: mean± standard deviation *Low mean of EI skills scores from 1 to 2.99 Moderate mean of EI skills scores from 3 to 3.99 High mean of EI skills scores from 4 to 5 **Table (3): Study subjects' communication skills levels during conduction of health education. (n=210).

Communication						
skills dimensions'	No	%	Mean ± SD**			
scores		, .				
Building a Trustful Relationship						
- Low	17	8.1	2.60 ± 0.25			
- Moderate	75	35.7	3.49 ± 0.25			
- High	118	56.2	4.36 ± 0.43			
Opening the Discus	sion					
- Low	42	20.0	2.54 ± 0.35			
- Moderate	111	52.9	3.48 ± 0.23			
- High	57	27.1	$4.34{\pm}0.293$			
Information Gather	ring	-				
- Low	41	19.5	$2.37{\pm}0.38$			
- Moderate	66	31.4	$3.35{\pm}0.28$			
- High	103	49.0	$4.25{\pm}0.39$			
Client's acceptance	and r	espect				
- Low	78	37.1	2.44 ± 0.32			
- Moderate	105	50.0	3.24 ± 0.25			
- High	27	12.9	4.19 ± 0.26			
Information Sharin	g	-				
- Low	106	50.5	2.35 ± 0.46			
- Moderate	52	24.8	3.27 ± 0.25			
- High	52	24.8	4.39 ± 0.32			
Reaching Agreemen	nt					
- Low	162	77.1	2.05 ± 0.48			
- Moderate	34	16.2	3.26 ± 0.23			
- High	14	6.7	4.19 ± 0.29			
Providing Closure						
- Low	166	79.0	2.04 ± 0.46			
- Moderate	44	21.0	3.26 ± 0.25			
- High	0	0.0	$2.29{\pm}0.65$			
*Total communication skills scores						
- Low	67	31.9	2.59 ± 0.29			
- Moderate	130	61.9	3.39 ± 0.27			
- High	13	6.2	4.20 ± 0.21			

**Mean ± SD: mean± standard deviation
* Low mean of CS skills scores from 1 to 2.99
Moderate mean of CS skills scores from 3 to 3.99
High mean of CS skills scores from 4 to 5.

Table (4): Relationship between study subjects' emotional intelligence skills scores and their communication skills scores during conduction of health education. (n=210).

Emotional intelligence	Communication skills total scores	Test of significance	
scores	$Mean \pm SD$	F	P value
Low	3.0139 ±0.67		
Moderate	3.2709 ±0.54	3.13	0.036*
High	3.2500 ±0.49	5.15	0.030

* One-way ANOVA: Post Hoc Multiple Comparisons Tukey's Honest Significant Difference (HSD). FET: Fisher Exact Test

*The mean difference is significant at:

 $P \le 0.05 =$ significant

 $P \le 0.01 =$ highly significant

 $P \le 0.00 =$ very highly significant

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