

The Effect of Objective Structure Clinical Examination (OSCE) on Nursing Students' Emotional Intelligence and Feedback Seeking Behaviors

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Abstract:

Background: Using OSCE can help educators to evaluate students' competency, based on objective testing as well as it is foster students to develop many skills as problem solving, decision making, emotional intelligence, feedback seeking behaviors, emotional stability, and clinical judgment. The **aim** of the current study was to investigate the effect of OSCE on nursing students' emotional intelligence and feedback seeking behavior. **Research design** was a descriptive correlational design. **Setting** was Faculty of Nursing at Minia University. **Subjects:** included all first year and fourth year nursing students in the academic year 2018-2019 (N =717). **Tools:** Three tools were utilized to collect pertinent data for this current study. **Results:** the fourth year students had high score for OSCE feedback, EI, FSB than the first years who had moderate score. **Conclusion:** the current study concluded that the fourth year students had high score regarding their OSCE feedback, EI, and FSB than the first year. Also, there were positive correlations between the using of OSCE and students high level of EI as well as high level of FSB. **Recommendation:** encourage the use of OSCE to improve students' ability clinically, emotionally and cognitively.

Key word: OSCE, emotional intelligence, feedback seeking behaviors, nursing students.

Introduction

The mind works three major ways: knowledge, impact and motivation. The field of knowledge includes functions such as memory, thinking, judgement and abstract thinking. Emotions, moods, appraisals and other feelings are part of the sphere of effect. The motivation sphere is finally the person's sphere, which includes a biological drive or learning to pursue a goal (Asthana & Lodhwal, 2017).

A multi-system examination utilizing real or simulated patients is an objective structured clinical examination (OSCE) to evaluate clinical skill, attitude and cognitive abilities in patients.

Reliability and validity have been demonstrated for clinical performance evaluation (AbdAlla& Khalid, 2016).

Emotional intelligence (EI) is an able to sense emotions, access and generate emotions to support the thinking, to understand emotions and emotional knowledge, and to reflect emotional growth (Cheshire, et al., 2015). EI is desirable and necessary in a high-quality, serviceable profession, and in the nursing profession and EI many features and qualities that have been identified as requirements for a nursing profession are self-awareness, autonomy, self-motivation, empathy and advanced social skills (Jones, 2013).

The skills of the students are dependent on many underlying areas like cognitive skills and characteristics. Emotional intelligence (EI) is one of these attributes, which is increasingly associated with the successful academic achievements of clinical and health students. This applies particularly to their communication performance, as is demonstrated by a significant positive relationship between communication skills and EI; as well positive connection found between EI and university performance over the clinical years (Singh, et al., 2020).

Emotional awareness is about how an individual's emotions influence the person's performance and ability to use his/her values to help decide; whereas precise self-assessment concerns a person with a more profound understanding of his/her own abilities, limits and internal resources. Self-confidence is about determination, strength, decision-making, and judging rightly in the face of uncertainty and pressures. Autonomy is essential for superior career performance (Otuedon, 2016).

The objective structured clinical examination (OSCE) aims at evaluating the skills of learners, such as history, physical exams, interaction and professionalism. Objective assessment is important, since the development of clinical expertise is frequently inaccurate and insufficient by themselves. For both formative and summative purposes, OSCEs may be used to assess performance. Formative feedback is known as "information that is passed on to the learner to amend his thinking or behavior to improve his or her teaching" (Junod-Perron et al., 2015).

Moreover, feedback has been proved to be an important learning driver. However, a lot of factors can influence its

effect, such as the emotional reaction feedback. OSCEs have also demonstrated that they are a useful method for assessing learning (Pugh, et al., 2018). One important way for OSCE to support learning is by providing verbal feedback which examiners frequently provide during OSCE training sessions at each station. The students can therefore make use of this feedback to self-regulate their study. However, the trust, comfort and experience of students have shown that they affect the way they receive feedback (Eva, et al., 2012).

In assessment contexts, including feedback, positive and negative emotions are experienced, although the role they play is less known (Peterson, et al., 2015; Rowe et al., 2014). Education literature indicated feedback seeking behaviors (FSB) as a source of trust, pride and disappointment (Rowe, 2017).

Feedback seeking behavior (FSB) represents an essential element in the learning process and is an effort to ascertain whether one's actions are adequate. Different forms of feedback involve passive environmental monitoring and active demands for others to evaluate one's performance (Ashford, et al., 2003).

Significance of the study

OSCE may be most effective in assessing safe practices in the areas of psychomotor performance and declarative and scheme-related knowledge in nursing degree programs. Feedback from nursing students indicates that OSCE is an objective tool to assess clinical competences. As the results Eswi, et al. (2013) study revealed that the vast majority of students provided positive feedback on the attributes of the OSCE in both classes because 95% agreed that the OSCE was a realistic evaluation for the

course. Regarding the quality of OSCE performance, most students agreed that the OSCE examination was fair (95%), covering a vast variety of knowledge (90%), and that it was well managed (96.3%).

Also emotional intelligence in nursing practice helps students' better deal with clinical pressures and communicates effectively with patients. Therefore, developing students' emotional maturity may seem more important than their physical responsibilities (Al-Metyazidy, et al, 2019).

Benson, et al., (2010) mentioned that the moderate level of EI foster student nurse to be effective in dealing with everyday career demands. Also, emotionally intelligent student nurse can respond to health care setting challenges, manage their stress and effectively deal with their educationally needs. Therefore, it is important to assess and foster the EI skills among nursing students.

Also, feedback-seeking behavior (FSB) is generally considered a desirable individual (student) behavior. FSB is an important issue that only can help students to have good insight about their performance or behaviors, as well it paly as important stimuli to them to improve their weakness (DeNisi & Sockbeson, 2018). Gino, (2016) have shown that individuals who seek out disconfirming feedback (contrary to their self-perceptions) can do their performance better than those who only listen to positive qualities from people only; as being aware of own weaknesses is a critical issue for improvement.

Aim of the Study:

The aim of the current study was to investigate the effect of OSCE on nursing students' emotional intelligence and feedback seeking behavior

Research Questions

1. What are the students' feedback about OSCE, and their level of emotional intelligence and feedback seeking behaviors?

2. Is there is a relation between OSCE, emotional intelligence and feedback seeking behavior among nursing students?

Subjects and Method

Research Design:

A descriptive correlational research design was used to fulfill the aim of this study

Setting:

This study was conducted in Faculty of Nursing at Minia University

Sample:

The subject of the present study included all first year nursing students (N=355) and fourth year nursing students (N=362) enrolled in Faculty of Nursing at Minia University for the academic year 2018-2019; the total number (N =717).

Data Collection Tools:

Three tools were utilized to collect pertinent data for this current study.

Tool (I) OSCE Feedback Questionnaire: it consisted of two parts:

Part one: Personal data sheet: designed by the researchers. It was used to collect data about the personal data characteristics of the study participants. It included items related to gender, residence, and academic year.

Part two: OSCE Feedback Questionnaire: This tool was developed by **Pierre et al., (2004)**; and used in current study to assess OSCE feedback. It consisted of 32 items; and included four dimensions as follow: OSCE attributes dimension (13 items) using 3-point Likert scale which ranges from (1=Disagree , 2= Natural and 3= Agree), with scoring system ranged from “13-39”, OSCE performance dimension (8 items) using 3-point likert scale which ranges from (1= Not at all , 2= Natural and 3= To greet extent) with scoring system ranged from “8-36”, OSCE validity and reliability dimension (4 items) using 3-point likert scale which ranges from (1= Not at all , 2= Natural and 3= To greet extent) with scoring system ranged from “4-12” and OSCE organization dimension (7 items) using 4-point likert scale which ranges from (1= Poor, 2= Good , 3= Very good and 4= Excellent) with scoring system ranged from “7-28”.

Tool (II): Emotional Intelligence Scale:

This scale was developed by **Abo Elela (2004)** to measure nursing student's emotional intelligence. It was consisting of 35 items with five components of emotional intelligence as follows: self-awareness (7 items), self-management (7 items), Self- motivation (7 items), empathy (7 items) and relationship management (7 items). Each statement was measured by four-point Likert scale ranged (1 = scarcely, 2= sometimes, 3 =

often, and 4 = always). The scoring system of total emotional intelligence was 35 to 140 distributed as follows (from 35 to 70 indicates low EI, from 71 to 105 indicates moderate EI, and from 106 to 140 indicates high EI)

Tool (III): Feedback seeking behaviors questionnaire (FSB)

This tool was developed by researchers after reviewing literatures **Ashford (1986), Ashford (1993), Tayfur (2006), and Linderbaum and Levy (2010)**. It consisted of 50 items; divided into nine dimensions as follow: desire for useful information (7 items), ego defense (7 items), defensive impression management (6 items), assertive impression management (4 items), feedback utility (5 items), feedback accountability (5 items), feedback self-efficacy (5 items), feedback delivery (7 items), and feedback for exam (4 items) using 5-point likert scale which ranges from (1= **Extremely untrue**, 2= **Untrue**, 3= **Not sure**, 4= **True** and 5= **Extremely true**) for positive statement; the score was reversed in the negative statements. The negative statements are (4, 5, 6, 7, 11, 12, 13, 17 and 19). The scoring system ranged from 50 to 250, and it divided into three levels as follow: from 50-116 indicates low FSB; from 117-183 indicates moderate, and from 184-250 indicate high.

Validity of the study tools:

An expert five panel from the Departments of Medical and Surgical Nursing; and Community Nursing; and Nursing Administration at the Faculty of Nursing, Minia University, has established the validity of the current study tools. The tools for content, wording, time, cover clarity, format and overall appearance have been requested for each expert panel. All jury members

agree, on the basis of their recommendation, that these study tools are valid and relevant to the purpose of the study, so that the jury panel did not modify them.

Reliability of the study tools:

Using Cronbach's Alpha Coefficient for the analysis instruments, the reliability test was calculated. To test the internal accuracy of the study scales, Cronbach's Alpha Coefficient was used. The reliability value for the OSCE feedback questionnaire was (0.864), emotional intelligence scale was (0.759), and feedback seeking behaviors questionnaire was (0.886).

Pilot study:

The pilot study was carried out on (10%) of the participants which equal (72) from first and fourth year Nursing students at Faculty of Nursing, to ensure the clarity and applicability of the tools items, and to determine the time required to complete the tools. The results showed that the time spent in filling the tools was ranged between 30-40 min. Based on the pilot study analysis no modifications were done in the tools.

Procedure:

- Tools (I and III) were translated into Arabic, while tool (II) was adopted in an Arabic form.

- The Faculty of Nursing's research ethics committee in Minia University received written initial approval.

- The dean of the faculty, and vice dean of education and students affairs of the Faculty of Nursing at Minia University have approved the conduction the study.

- Researchers explained to student participants the objective, nature and importance of the study, which is designed to improve co-operation during research implementation.

- Oral consent was obtained from each participant in the study after explaining the purpose of the study.

- During data collection the researchers handled the questionnaire sheets individually to the participant nursing students then explained the questionnaire sheets to them asking for their participation.

- The researchers waited until the participants completed the sheets.

- Data was collected during academic year 2018-2019

- Application of OSCE in community health nursing department; the final clinical exam was carried out in the nursing skills lab by OSCE. It consists of six skills stations and one for documentation each with a standard checklist, a planned scenario, and a limited time. Stations included: carrying out growth measurements for an infant, comparing the weight and length of a school-aged child, assessing neonatal head and chest circumferences using a designated doll for this purpose, preparation and applying of I.M, S.C injection, history taken for elderly patient;etc., and photo station.

- In medical surgical nursing department: the application of OSCE to evaluate the students' skills to ensure competence before contact with patients in real situation and applies this examination in skill lab power with supplies and equipment. Usually, the exam composed from six skills station and two photo station e.g. implement

nasogastric tube insertion, measuring blood pressure, clean and disinfect thermometer....etc

Ethical Considerations:

The dean of faculty, and vice dean for education and student affairs at the Faculty of Nursing at Minia University, issued an official letter to the student. The student nurses included in the study had a verbal explanation of nature of the study and the objective of that study. The students were given the right to reject, cancel or participate, and their information and data were promised to be confidential.

Statistical analysis of data

Computer software, the Statistical Package for Social Studies (SPSS), version 21 was used to record data and to analyses statistics. Adequate statistics for qualitative variables, methods and standard deviations from quantitative variables such as frequencies and percentages were used. To estimate the close relationship between variables, correlation coefficient (r) test was used. Statistical significance at p-value <0.05 was taken into account for all the tests.

Results:

Table (1) shows that the (50.9%) nursing students of first and (59.7%) of fourth year were females. Also, there is (85.4%) of nursing students of first and (67.4%) of fourth year were living in rural area.

Figure (1) reveals that all of first year nursing students had low feedback about OSCE (100%), as well as the majority of them had low level of EI (97.2%) and low level of FSB (98.9%) at the beginning of the year. While at the

end of year; nursing students had moderate level for all variables; feedback about OSCE, level of EI, and FSB (64.5%, 61.4%, and 60% respectively) with highly statistically significant differences for all variables between the beginning and end of year.

Figure (2) displays fourth year nursing students of the Community Group had high level of OSCE feedback (66.9%), high level of EI (81.2%), and high level of FSB (56.9%). As well as fourth year nursing students of the Administration and Psychiatric group had high level for all variables; OSCE feedback, EI, and FSB, (46.4%, 50.8%, and 49.7%, respectively) with statistically significant differences for all variables between two groups.

Table (2) implies that the fourth year nursing students had higher mean scores for all dimensions of OSCE than first year nursing students with highly statistically significant differences for all dimensions ($P=0.000^{**}$) between them. As well as fourth year nursing students had higher mean scores (80.5+13.7) for total score of OSCE than first year nursing students (75.9+9.9) with highly statistically significant differences ($P=0.000^{**}$) between them.

Table (3) shows that the fourth year nursing students had higher mean scores for all dimensions of EI than first year nursing students with highly statistically significant differences for all dimensions ($P=0.000^{**}$) between them. As well as fourth year nursing students had higher mean scores (113.8+28.8) for total score of EI than first year nursing students (98.3+25.4) with highly statistically significant differences ($P=0.000^{**}$) between them.

Table (4) reveals that the fourth year nursing students had higher mean

scores for all dimensions of FSB than first year nursing students with highly statistically significant differences for all dimensions ($P=0.000^{**}$) between them. As well as fourth year nursing students had higher mean scores (169.4+53.4) for total score of FSB than first year nursing students (111.1+38.1) with highly statistically significant differences ($P=0.000^{**}$) between them.

score ($r=0.517$, $p=0.000$) as well as positive correlation between EI score and FSB score ($r=0.151$, $p=0.004$) while no significant correlation between OSCE feedback and FSB score among students of first year. Also, there were positive statistical significant correlation between EI score and OSCE feedback score ($r=0.804$, $p=0.000$) as well as positive correlation between EI score and FSB score ($r=0.861$, $p=0.009$) and significant positive correlation between OSCE feedback and FSB score ($r=0.132$, $p=0.012$) among students of fourth year.

Table (5) declares that there were positive statistical significant correlation between EI score and OSCE feedback

Table (1) Distribution of the nursing students personal data (n=717)

Personal data	Nursing students		Fourth year (N=362)	
	First year (N=355)		No	%
	No	%	No	%
Gender				
• Male	175	49.3	146	40.3
• Female	180	50.7	216	59.7
Residence				
• Rural	303	85.4	244	67.4
• Urban	52	14.6	118	32.6

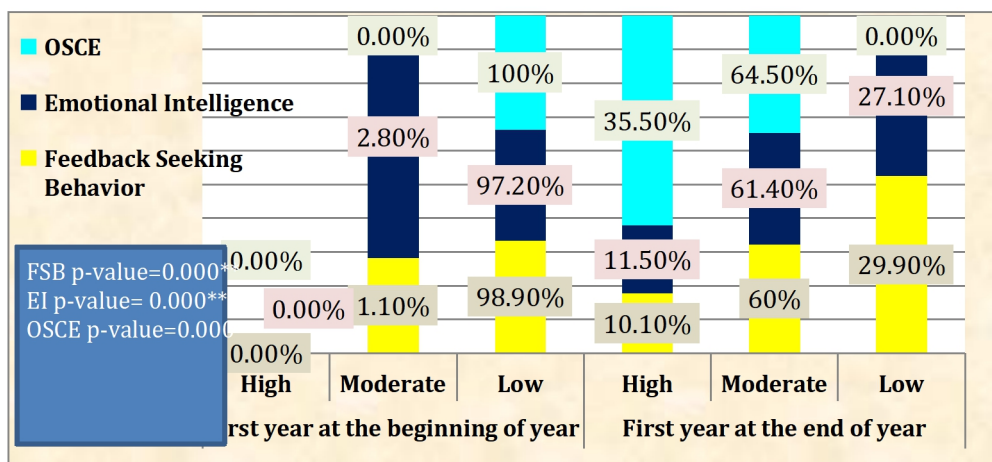


Figure (1) Frequency distribution by percentage regarding studied variables among first year nursing students (n=355)

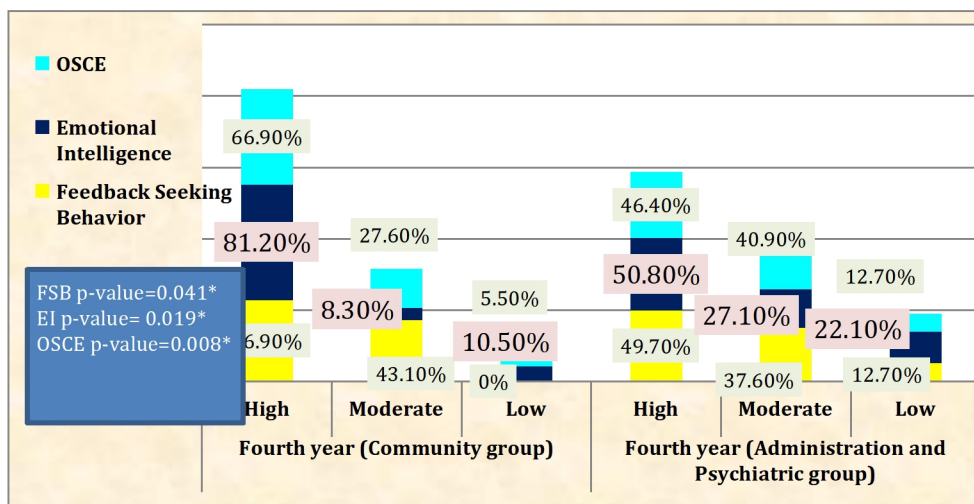


Figure (2) Frequency distribution by percentage regarding studied variables among fourth year nursing students (n=362)

Table (2) Mean score comparison between first year students and fourth year students regarding OSCE and its dimension

OSCE	Nursing students (N=717)				T	P-value
	First year (N=355)		Fourth year (N=362)			
	Mean	+SD	Mean	+SD		
OSCE attributes	30.9	2.61	32.6	5.36	5.22	0.000**
Quality of OSCE performance	19.4	1.69	20.2	3.48	3.96	0.000**
OSCE validity and reliability	9.52	1.53	10.1	1.90	4.11	0.000**
OSCE organization	16.1	3.62	17.6	3.52	5.89	0.000**
Total OSCE	75.9	8.90	80.5	13.7	5.62	0.000**

Table (3) Mean score comparison between first year students and fourth year students regarding Emotional intelligence and its dimension

Emotional Intelligence	Nursing students (N=717)				T	P
	First year (N=355)		Fourth year (N=362)			
	Mean	+SD	Mean	+SD		
Self- awareness	16.5	4.82	22.4	6.37	13.9	0.000**
Self-management	16.7	4.46	22.5	6.16	14.3	0.000**
Self-motivation	17.1	4.43	22.2	5.79	13.1	0.000**
Empathy	17.7	4.96	23.2	6.09	13.2	0.000**
Relation of self-management	18.1	4.63	23.4	5.81	13.4	0.000**
Total Emotional Intelligence	98.3	25.4	113.8	28.8	14.2	0.000**

Table (4) Mean score comparison between first year students and fourth year students regarding feedback seeking behaviors

Feedback Seeking Behaviors	Nursing students (N=717)				P	T
	First year (N=355)		Fourth year (N=362)			
	Mean	+SD	Mean	+SD		
Desire for useful information	10.13	3.13	17.5	10.8	12.4	0.000**
Ego defense	10.8	3.14	18.1	9.55	13.5	0.000**
Defensive impression management	15.3	5.47	20.7	4.56	14.2	0.000**
Assertive impression knowledge	10.4	4.01	15.2	3.88	16.2	0.000**
Feedback utility	14.5	5.64	19.5	3.13	14.7	0.000**
Feedback accountability	9.90	4.53	15.2	5.73	13.7	0.000**
Feedback self-efficacy	9.87	4.04	15.8	6.86	14.2	0.000**
Feedback delivery	15.4	7.66	24.3	9.78	13.5	0.000**
Feedback for exam	15.2	5.00	17.5	2.82	7.45	0.000**
Total Feedback Seeking Behaviors	111.8	38.1	169.4	53.4	16.5	0.000**

Table (5) Correlation between OSCE, Emotional Intelligence and Feedback Seeking Behaviors among nursing students

Variable	First year (N=355)			Fourth year (N=362)		
	OSCE	Emotional Intelligence	Feedback Seeking Behaviors	OSCE	Emotional Intelligence	Feedback Seeking Behaviors
OSCE	R	1	0.517**	0.037	1	0.804**
	P		0.000	0.489		0.009
Emotional Intelligence	R		1	0.151**	-	1
	P			0.004		0.012
Feedback Seeking Behaviors	R			1	-	-
	P					1

Discussion:

Nursing profession is a stressful profession because it requires that their practitioners to have specific skills psychological and practical skills in order to provide high quality of patients' care. Moreover, the nursing practitioners when they were students; they should be educated and trained well during their clinical practice at their study time. So, as nursing students they need to practice about self-regulation, self-efficacy, emotional intelligence (EI), emotional stability, critical thinking, problem solving, and feedback seeking behaviors (FSB) (Ibrahim, et al., 2016).

Regarding the OSCE: the results of current study agreed that all first year nursing students had low feedback regarding OSCE; this result might be because first year nursing student hadn't use or know what the OSCE is at the beginning of the year. While at the end of the year the highest percent of first year nursing student had moderate feedback about OSCE; and this result could be due their knowledge, awareness and usage of OSCE as they had been examined by OSCE.

As regards the fourth year students, it was observed that highest percentage of both groups had high feedback regarding

the use of OSCE but the community group had high feedback about OSCE more than the psychiatric and administration group; this result could be due to the usage of OSCE in community nursing clinical exam, while the psychiatric nursing and administration nursing didn't apply OSCE in their clinical exam; thus the community nursing group had high score than group of psychiatric nursing and administration nursing. Also, all of fourth year students had high feedback regarding the use of OSCE, because they had examined by OSCE in their previous three years of study.

This result was congruent with **Omu, et al., (2016)** agreed in their study regarding attitudes about OSCE in obstetrics and gynecology that the perception of OSCE examination was highly positive among the students. **Elfaki and Al-Humayed (2016)** had a study on College of Medicine student in internal medicine department, at King Khalid University; and their results implied that medical student feedback proved their positive and acceptance of OSCE.

Also, **Khan et al., (2016)** in their study mentioned that the student of Khyber Medical College (KMC) had positive view and feedback regarding the using of OSCE in their annual clinical exam. In addition, the result was in same line with **Majumde, et al., (2019)**, in which they revealed in their study about the evaluative of (OSCE) that the majority of the students provided positive feedback regarding OSCE.

Further, the present study implied that the fourth year nursing students had higher mean scores for total score and all dimensions of OSCE (OSCE attributes, Quality of OSCE performance, OSCE validity and reliability, and OSCE

organization) than first year nursing students with highly statistically significant differences for all dimensions between them.

This result was in line with **Elneher and Kandeel (2009)** as they represented in their study that majority of nursing students from two groups mentioned a positive feedback regards the OSCE attributes. The study results showed that the OSCE was good, involved more range of knowledge, and it was well administered. Also, most of their study students mentioned that OSCE stations were sequenced and structured in a good manner. **Omu, et al., (2016)** added that perception of OSCE examination was highly positive among the students for the instruction and organization quality, the process transparency, methods of examine skills for clinical, assessment of knowledge, and communication skills practice.

Moreover, **Khan et al., (2016)** presented that (88%) of medical students agreed that the OSCE was fair and comprehensive; (97%) participants were of the opinion that the exam was less biased; all candidates (100%) said the OSCE guidelines were clear and legible and that they had suitable information regarding to what will happen in OSCE. In relation to OSCE overall validity and reliability, 96% of the medical students agreed that they were satisfied; finally their study displayed that 87% said they recommend OSCE as a fairer, practical, valid, and reliable means of clinical evaluation.

Skrzypek et al., (2017) assessed OSCE from the perspective of 3rd year medical students; they mentioned that the students viewed OSCE as: good-organized exam; fair; clear; had good introduction knowledge; and help them to recognize skills that need improvement.

Also, this was in same line with **Elfagi, et al. (2020)** who mentioned in their study that majority of students imparted a positive feedback about the assessing the quality of OSCE in relation to: OSCE instructions, clarity for the exam, the OSCE stations sequence, the reflection of the tasks taught, and OSCE time for each station.

Regarding the EI: the results of current study agreed that all first year nursing students had low level of EI; while at the end of the year the highest percent of first year nursing student had moderate level of EI. This mean that first year nursing students at the beginning of the year still have poor skills as they were newly college students and have disturbance from their new faculty courses and topics. They considered as sponge cotton that need more training and practicing to acquire the skills and knowledge by the time.

Also, this could be as a result of studying the nursing curriculums which can stimuli and foster students to communicate in a good manner with different categories of individuals. Moreover, the using of OSCE and the support of clinical instructors to students during their clinical training and during the application of OSCE; can encourage them to grow their clinical and cognitive skills such as communication, problem solving, decision making, emotional stability and EI skills.

The present study showed that the highest percent of fourth year nursing students among the community group had high level of EI, as well as the highest percent of fourth year nursing students of Administration and Psychiatric group had high level for EI, with statistically significant differences between two groups. These results might be due to the fourth year experiences that they acquired

by practicing nursing at clinical labs and hospitals during their studying; as well as by dealing with various types of people and culture; in which it can foster them to acquire more knowledge and skills about people personalities and the way of their thinking.

However, the community group had high level of EI than Administration and Psychiatric group, which can be due to the application of OSCE among community group; as by using OSCE nursing students can be fostered and encouraged to develop their cognitive skills as EI because they should more aware and control their emotions during OSCE stations. Also, the OSCE is a multilateral multipurpose assessing tool that can be utilized to examine health care students in a clinical setting.

Thus, By applying OSCE which have many stations; student have to be evaluated for their capability to obtain and interpret data, solve the problem they face or patient face, provide teaching, communicate, and deal effectively with unpredictable patient behavior, which are otherwise impossible in the traditional clinical examination (**Zayyan, 2011**). Therefore, all of these characteristics of OSCE demanded students to develop their EI skill as well as enhance educators to encourage students to develop it during their clinical training (**Victoroff & Boyatzis, 2013**).

The first year result might be with **Khalaf-Alah, et al. (2018)** in which they revealed in their study that the highest percentage of Faculty of Nursing students at Minia university have moderate EI and near half of them have high EI. Also, this was in line **Por, et al. (2011)** results who agreed that EI score was above moderate.

The results of fourth year was in accordance with **Fteiha and Awwad**

(2020) who study the relation between EI and stress coping and their study showed that the majority of students had high level of EI. While, this is not in accordance with **Mahmoud & Mousa (2013)** who found that the majority of all students had moderate level in all elements of EI. Also, this result was not in line of **El-dahshan et al., (2020)** who revealed that the majority of nursing students having moderate and above average levels of EI. **Khurshid et al., (2018)** revealed that the research data about the measure of the students' EI level reveals that 23 % students have low EI, 50 % have moderate EI and only 27% have high level EI.

Furthermore, the present study displayed that the fourth year nursing students had higher mean scores for total score and all dimensions of EI (Self-awareness, Self-management, Self-motivation, Empathy, and Relation of self-management) than first year nursing students with highly statistically significant differences between them. These results could be due to the huge experiences that fourth year students acquired during their practicing of nursing at clinical setting and hospitals in which they are dealing with different categories of people; that can help them to gain knowledge about people personalities and their ways of thinking.

This is in accordance with **Mahmoud and Mousa (2013)** who found that the majority of all students had moderate level in all elements of EI. Also, this was in line with **Khalaf-Alah, et al. (2018)** who mentioned in their study that the four academic year's students had high level scores in all components of EI which were self-awareness, managing emotions, motivation, empathy, and social skills.

Regarding the FSB: The results of current study displayed that all first year nursing students had low level of FSB; while at the end of the year the highest percent of first year nursing student had moderate level of FSB. This mean that first year nursing students had poor behaviors for seeking feedback at the beginning of the year; this might be due to the poor skills of EI and poor practicing of clinical skills that stimulate them to seek for feedback. Also, FSB can be developed by studying and practicing nursing skills which can be an initiator for students to seek for their performance feedback. Moreover, using OSCE can enhance students to seek for feedback as application of OSCE work as a motivator for students to ask the examiner about what they do well and what they do poor in order to enhance their clinical skills and performance.

Moreover, current study showed that the fourth year nursing students had higher mean scores for total score and all dimensions of FSB (desire for useful information, ego defense, defensive impression management, assertive impression knowledge, feedback utility, feedback accountability, feedback self-efficacy, feedback delivery, and feedback for exam) than first year nursing students with highly statistically significant differences for all dimensions between them. As regards to the fourth year students, it was observed that highest percentage of both groups had high level score of FSB but the community group had high FSB level than the psychiatric and administration group.

These results might be due to the fourth year maturity and growing of their mind in which they seek for their performance feedback because they will graduate in a few months and they want to be more qualified to help them work in professional hospitals with high salaries.

However, the community group had high level of FSB than Administration and Psychiatric group, and this can be a result of applying OSCE for the community group.

By using OSCE, the students can be fostered and motivated to ask about their performance and seeking for their clinical practice and received a feedback. As when there is more motivation for nursing students; there will be more FSB from them. Also, according to self-determination theory of motivation (intrinsic or extrinsic) the using of OSCE can stimulate students to seek for feedback and developing their performance by internal or external forces.

As by using OSCE the student's autonomy motivation internally or externally can be enhanced and developed. **Legault, L. (2017)** mentioned that one step to the right motivation is using external regulation, in which this motivation is exclusively external and regulated by conformity, compliance, and external rewards or punishments. And this can be founded by applying OSCE for assessing students' skills in the clinical setting; in which this can lead to improve the FSB level among students' especially active students.

Also, **Vansteenkiste et al. (2014)** agreed that the use of self-determination theory of motivation can be stimuli for student's internal and external forces to seek feedback. Furthermore, this was supported by **De Jonga et al., (2017)** who had a study aimed to gain view about the impact of motivation on students to seek feedback in the clinical setting; and study findings implied that the high motivate student can be encouraged to seek feedback. Also, if the students had high performance score, they can be more motivated and this increases their self-

regulation which stimulates them to seek for feedback regarding their performance.

While the current study result was not in congruence with **Posner (2019)** who noted in his study form student leaders' perspective that only seven percent of them mentioned that they rarely ask for feedback; and only 11% indicate that they seek feedback almost all of the time.

Therefore, there is a challenge in FSB for students, and people generally in which it strikes a stress between two basic needs for human: the need to learn and developed versus the need to be accepted just the way one is (**Posner, 2019**). Thus, even what appear to be mild or harmless opinion from a peer (or teacher) can make student to be more angry, or vulnerable. Also, the reasons for not seeking for feedback may be the fear of being exposed—to comments and criticism, feeling to be not perfect, feeling as not knowing information (let alone everything), or feeling as not having the suitable abilities (**DeNisi & Sockbeson, 2018; Buckingham & Goodall, 2019**).

Furthermore, the desire for useful information can used to increase people's FSB in both positive and negative performance situations. While defensive motive on the other hand, can be used to reduce feedback seeking in both positive and negative performance situations. Thus, if students have the desire to receive useful information about their performance and behaviors; they may use all FSB methods without considering their image costs (**Tayfur, 2006**).

Finally, present study declared that there was positive statistical significant correlation between EI score and OSCE score; as well as positive correlation between EI score and FSB score; while no significant correlation

between OSCE and FSB score among students of first year. Also, there was positive statistical significant correlation between EI score and OSCE score; and positive correlation between EI score and FSB score; and significant positive correlation between OSCE and FSB among students of fourth year.

Zhoc et al., (2020) results showed that EI positively improve all components of student engagement and fostered their learning outcomes and skills (including GPA, problem solving, seeking feedback, and satisfaction with their faculties and university. Also, the EI is a crucial predictor of students' academic performance in overall types of exams as OSCE regarding first- and final-year (**Brckett & Salovey, 2006; Chew, et al., 2013**).

In particular, FSB can improve one's self-awareness (**Kouzes & Posner, 2017**). So, feedback helps individuals (students) to have a perspective about themselves and how they are doing that only others can provide. Also, self-awareness is considered one of the EI dimensions as well as the self-management, social awareness, and social skills (**Goleman, et al., 2002**). Thus FSB can help individuals to be aware of their own weaknesses, strengths, personality, style, preferences, etc.; so there is a positive effect of FSB on one's EI skills.

Conclusion:

The current study concluded that the fourth year students had high score regarding their OSCE feedback, EI, and FSB than the first year. Also, there were positive correlations between the using of OSCE and students high level of EI as well as high level of FSB.

Recommendation

To support feedback, teachers should know what may encourage students to seek feedback and how those motives affect feedback on behavior, and how students can increase their understanding of emotions. In the interests of feedback, teachers should know what can stimulate feedback. In order to improve their ability clinically, emotionally and cognitively, educators should also continue to utilize OSCE as a professional type of exam.

Conflict of interest:

There is no conflict of interest and no fund from any institution.

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