The Effect of Emotional Intelligence Program on Nursing Students’ Clinical Performance during Community Health Nursing Practical Training

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Received March 01, 2020; Revised April 04, 2020; Accepted April 12, 2020

Abstract  Background: Nursing profession and community health nursing practice needs the understanding of a lot of emotional perception, social skills or capability to manage self-emotions and emotion of others to convey the caring attribute. It is the hardest and most emotionally drained profession which requires high degree of emotional intelligence (EI) that can be developed. This study aims to evaluate the effect of emotional intelligence program on nursing students’ clinical performance during community health nursing practical training. Methods: A quasi-experimental design was used. This study conducted at the nursing faculty, Benha University. A convenience sample (100) students who were recorded at community health nursing course were included in this present study. Three tools were used for collection of data: first; structured interviewing schedule for collecting data about demographic characteristics and knowledge of the subjects toward emotional intelligence. Second; The Schutte Self-Report Emotional Intelligence Test, it was comprised of 33-items. Third; the six dimension scale of nursing performance (6-DSNP) to evaluate the students’ clinical performance. Results: There were statistically significant progresses (P= 0.000) toward nursing students’ emotional intelligence & knowledge and their clinical performance after the program as compared to before program. A positive significant correlation (P< 0.05) between total studied students' scores of EI and all subscales of 6-DSNP before and after the program, also, there was a significant relation (P< 0.05) between studied students’ total scores of EI & gender of students before and after the program. In contrast, no significant relation (P > 0.05) was observed between total scores of 6-DSNP & students’ total scores of EI and their socio demographic characteristics. Conclusion: The emotional intelligence program was efficient in improving emotional intelligence of nursing students and their clinical performance through practical training of community health nursing after the program. Recommendation: Teaching courses and sessions about EI should be done for the community health nursing students to develop students’ EI and the topic of EI should be included as a basic section in the community health nursing program for undergraduate and graduate nursing curriculum.

Keywords: emotional intelligence, program, clinical performance, nursing students, practical training


1. Introduction

Nurses considered as first line healthcare workers must be emotionally smart, critical thinker, innovative, and self-directed to be able to create right judgments and solve clinical difficulties. [1,2] Since nurses expected to protect and encourage the well-being of people and to improve their quality of living, nursing students should know their own feelings and thoughts before the patients, so this requires that nursing students should acquire emotional intelligence skills which equip them for providing skilled nursing practice and help them in their practical environment. [3]

Nursing students are required to manage numerous clinical situations, adapt to the different teaching styles, work independently toward objectives, and manage conflicts during community health nursing practice. In addition, some aspects of academic work may be considered highly stressful such as taking exams and practicing nursing procedures in health care settings. These situations require high levels of emotional management. It is the responsibility of educators to equip them in the best way possible not only providing knowledge but helping them to develop the competencies...
they will need to best serve their patients, so curriculum designers should consider implementing components designed to help students develop their emotional intelligence [4].

Emotional intelligence essentially is the ability to recognize and control over our emotions and those of others, to understand why someone is feeling what they are, to express emotion in a productive way, to use the knowledge of our and others emotions as a motivation tool and a guide to constructing realistic relationships [5]. Building trustful relationship with the client is the first and most important skill in efficacious care. These skills include the ability to feel or imagine another persons' emotional responsiveness, understand and regulate own emotions; acknowledge others' emotions, and the capability to manage emotions of self and others. All of this capabilities knowing as emotional intelligence [6]. In other words, EI mentioned as 'the one's ability to recognize personal feelings and those of others and encompasses handling emotions excellently in ourselves and in our relationships [7].

An emotional vocabulary is a building block of EI. Research has shown that establishing an emotional vocabulary allowing improving your communication regarding emotion, which will allow you to express your own emotions in healthy way and better understanding the emotions of others. Inadequate recognizing or managing one’s emotions cause deficiency of understanding, conflict, or unhappiness with self and others. Improving skills of EI can improve both career and interpersonal relationships.

[8,9] EI is more essential in practical skills than intellectual intelligence, since people with high EI work better within team, establish higher collaborative skills and postulated that for a person to take full benefit of their cognitive intelligence will needs EI first. [10] For a person to be emotionally intelligent he should be able to perceive one’s own emotions and then use that information in meeting a comprehensive health-care need of individuals, families and society. The persons who are not supportive in accepting their own emotions and who fail to approach mistakes without prejudice often become depressed, feel emotionally exhausted, have decreased job satisfaction, and lose their sense of personal success. As a result their quality of life becomes adversely affected. This further adversely affects the rendering of quality nursing care and concluded that the development of self-compassion and EI in nursing students is imperative. [11]

The Six Dimension Scale of Nursing Performance (6-DSNP); the questionnaire was planned by Schwirian, 1978. The intention of the researcher was an assessment of the performance of nursing graduates and nurses with the period of employment up to 2 years. The SDNS has been applied not only to assess performance of the graduates of nursing, but also those with long-term professional experience. It consisted of 76 detailed criteria. The final version contains 52 detailed criteria, which have been ascribed to 6 main categories intensive/critical care, teaching/collaboration, Leadership, interpersonal relations/communication in the team, professional development and planning/evaluation of care. [12] Emotional intelligence is shown to far outweigh Intelligence Quotient (IQ). EI may be a more significant factor in career performance because how well one does their job is not based on just cognitive intelligence, but other intelligences as well, like interpersonal skills, understanding emotions of self and others, and adapting to change in the environment. The skills identified in EI are qualities demanded in the nursing profession, these qualities being self-awareness, self-regulation, self-motivation, empathy, and well-developed social skills. [13]

It is worthwhile for nurse educators to improve their own skills and students’ EI skills through coaching their students in effective conflict management to enhance their EI, and, as a result, prepare them to face conflict as nursing students as well as future professional nurses. [14]

1.1. Conceptual Framework

The theoretical background of the current study based on the models that anticipated for emotional intelligence by Salovey and Mayer’s (1990) [15] that was defined EI as a social intelligence subset involving a person’s ability to monitor one’s or others’ emotions and feelings, discriminate among them and be able to use these information to guide one’s thinking and actions. It is an important characteristic that may have an effect on the quality of the student’s clinical performance. The Assessing Emotions Scale, in some literature, called the Emotional Intelligence Scale, the Self-Report Emotional Intelligence Test, or the Schutte Emotional Intelligence Scale. This model suggested that emotional intelligence consists of evaluation of emotion in the self and others, expression of emotion, regulation of emotion in the self and others, and using of emotion in resolving problems.

Mayer et al., 2003 [16] had mentioned four components of EI. These categories were perceiving, using, understanding and managing emotions. It is expected that in order for students to succeed in their nursing program they should have the capability to correctly recognize their emotions, and allow for the emotions to guide their thinking process. Students should know the meaning of these emotions and identify methods of regulating their emotions based on recent events. Based on Salovey and Mayer’s researches on EI, Ciirrochi et al., (2001) [17] derived the most commonly used subscales from the 33-item Assessing Emotions Scale. The four subscales were defined as follows: perception of emotions, managing self-emotions, managing others emotions, and utilizing emotions.

There are three types of nursing performance: competencies, quality indicators and performance measures [18]. The optimum instrument for the evaluation of the performance of nurses is the 6-DSNP and its validated versions. It has been applied in studies conducted by researchers worldwide. Many researchers dealing with the scope of problems of performance of nurses adapted this mentioned tool for their cultural and language conditions. Szara et al., 2016 [19] Clinical performance in this study refers to student achievement during the clinical training.

1.2. Significance of the Study

Developing nursing student’s EI skills will prepare them to compact the emotional demands of clinical practice especially in providing physical and emotional support mainly to the patients and their families. This also,
will prepare them to act as transformational nurse leaders who are able to perceive and manage self-emotions or managing others’ emotions and utilizing emotions and cooperating in an inter-professional environment that is continually changing. [20]

EI training should be included in nursing curricula to aid students in facing challenging situations. Given the generally higher levels of stress found in healthcare, nursing students may benefit from coaching as to how to effectively manage their emotions. [21] Programs aiming to develop EI have been implemented in various locations, and courses on increasing one’s EI as in organizations, universities and even in schools all over the world. Academic institutions should act to develop emotionally intelligent students in order to prepare them for working effectively in their work environment. [22] Especially in Egypt should be the main concern because there is no studies address our topic of EI skills training program of nursing student.

1.3. Aim of the Study

To evaluate the effect of emotional intelligence program on nursing students’ clinical performance during community health nursing practical training. This aim achieved through:
- Assessing nursing students’ knowledge about emotional intelligence
- Assessing nursing students’ EI and their clinical performance.
- Designing emotional intelligence program according to nursing students’ needs.
- Evaluating the effect of emotional intelligence program.

1.4. Research Hypothesis

Nursing students’ emotional intelligence and their clinical performance will be developed after implementation of EI program on nursing students.

2. Subjects and Methods

2.1. Research Design

A quasi-experimental research design with pre-post assessment was use to conduct this study. An intervention program was done to improve CHN students’ knowledge and clinical performance during practical training through developing their EI knowledge & skills which further improve their clinical competences.

2.2. Setting

The study was conducted at community health nursing department training course settings, Nursing Faculty, Benha University which affiliated to ministry of higher education, Egypt.

2.3. Sample Type and Criteria

The study comprised a convenience sample (100 male and female students) from total fourth year students who were registered at community health nursing course (130 male and female students) at the time of study during first semester, academic year 2018/2019, and accepted to share in the study were included in the program.

2.5. Tools of Data Collection

Three tools were used to conduct the study after translated into Arabic language:

2.5.1. Tool I

Structured Interview questionnaire sheet was scheduled. It covered two major parts:

i. Part 1: It was established by the researchers to elicit information about the socio-demographic characteristics of the studied subjects such as students’ age, gender, residence and students’ marital status.

ii. Part 2: Knowledge of nursing students regarding emotional intelligence. This part was used before and after implementation of the training program (pre/post-test format). It included fifteen open ended questions which include: definition, types of intelligence, types of interpersonal and intrapersonal skills of EI.

Scoring system of knowledge: For knowledge the correct answer was scored “two”, incomplete answer was scored “one” and the unknown or incorrect answer scored “zero”. The total knowledge score was calculated by adding the scores for the correct answers. The total possible score ranged from 0 to 30 point, 60% of total scores reflect satisfactory knowledge.

2.5.2. Tool II

Schutte Self-Report Emotional Intelligence Test (SSEIT). It was originally developed by Salovey & Mayer 1990, then it was modified by Schutte et al., (1998) [23]. Applied pre-post program. Components items of EI comprised of 33-item, three of which are reverse scored; It is a self-report on a 5-point Likert scale, scored as 1= strongly disagree, 2= disagree, 3= neutral, 4= agree, and 5= strongly agree. Total scale scores are calculated by reverse coding items 5, 28 and 33, and then summing all items. Scores can range from 33 to 165, the student considered to have low EI (33 to 77), moderate EI (78 to 121) and high EI (122-165). The items comprising four subscales were described by (Ciarrochi et al., 2001) [17] as follows: perception of emotions, managing emotions in the self, social skills or managing others’ emotions, and utilizing emotions. The items comprising the subscales based on these factors are as follows: Perception of Emotion (items 5, 9, 15, 18, 19, 22, 25, 29, 32, 33), Managing Own Emotions (items 2, 3, 10, 12, 14, 21, 23, 28, 3), Managing Others’ Emotions (items 1, 4, 11, 13, 16, 24, 26, 30), and Utilization of Emotion (items 6, 7, 8, 17, 20, 27).

2.5.2. Tool III

Performance levels was measured by the 6-DSNP. It was originally developed by Schwirian, 1978 [12]. The 6-D scale is a standardized test adapted and modified by the researcher and used before and after implementation of intervention and consisting of 52 three point test rated on a 3 point Likert-type Scale which addresses the 6 following...
aspects: Teaching and collaboration (11 questions), planning and evaluation (7 questions), critical care (7 questions), interpersonal relations and communication (12 questions), leadership (5 questions), and professional development (10 questions). The possible choices for each student to describe "Not very well," "satisfactory," and "very well;" to describe how often they performed the activities. Items 1-52 representing the quality of that particular behaviour. The purpose of the instrument is to allow measurement of nursing performance through self-evaluation. The purpose of the instrument is to allow measurement of nursing performance through self-evaluation. The total score of 52 items ranged from 52 to 156; higher grades indicate better student performance.

2.5.4. Tools Validity

The tools were reviewed for validity of the content by a panel of experts, three in Community Health Nursing and three in Health administration Nursing field to ascertain relevance and fullness. The two scale also presented evidence of predictive and discriminant validity.

2.5.5. Tools Reliability

The SSEIT was described to have a good two-week test-retest reliability. The internal consistency for subscales of SSEIT as follows: Perception of Emotion, 0.76, 0.80; Managing Own Emotions, 0.63, 0.78; Managing Others’ Emotions, 0.66, 0.66 and Utilization of Emotion, 0.55, a two-week test-retest reliability of 0.78 for total scale scores. The 6-D scale is a standardized research tool with a high degree of reliability. The Cronbach’s alpha coefficient for the whole tool was 0.97, whereas for individual detailed criteria it ranged from 0.84 – 0.90; leadership - 0.65; intensive and critical care - 0.73; teaching and collaboration - 0.83; planning and evaluation of care - 0.85; interpersonal relations and communication in the team – 0.84; professional development - 0.80.

2.6. Ethical Considerations

Before data collection, the students were informed about the purpose of the study. They were given a chance to refuse or to join in the study. Furthermore, they were knowledgeable that, their collected information would be personal and used only for the purpose of the study.

2.7. Pilot Study

A pilot study was carried out on 10 % of the sample (10) students that was excluded from the sample with the main purpose to test the relevance and applicability of the tools.

2.8. Field Work: (Intervention Construction)

Authorized approvals were gained from the accountable authorities of the faculty of nursing, Benha University to conduct the study after explaining its purpose. The study was carried out through four main stages: assessment, planning, implementation, and evaluation. These phases were carried out from beginning of August 2018 to the end of May 2019, cover along a period of 8 months. The first and second tools were administered to the students at the beginning of the first semester and the third tool during the first practical exam then the three tools were used at post program phase during the final practical exam. The previous mentioned setting was visited by the researcher two days/week from 9.00 am to 12.00 pm according to the schedule of fieldwork training of CHN students.

2.8.1. Assessment Phase

The researchers interviewed the students during the school day. After consent to share, students were interviewed to assess demographic data, knowledge regarding EI as well as The SSEIT to assess EI and The 6-D scale to assess nursing student’s clinical performance. The data obtained during this phase considered the baseline for further comparisons to evaluate the effect of training program on students' clinical performance.

2.8.2. Planning Phase

The intervention was planned by the researchers in a form of printed Arabic booklet to fulfill the students’ deficit knowledge and skills and according to the aim of the training program. A booklet was designed specifically for students, in simple Arabic language to be suitable for their level of understanding. It instructs students EI skills. The main focus of the intervention was on training and teaching of information for EI skills which include intrapersonal skills for promoting the EI which may be reflected on improving the student’s clinical performance. It comprises teaching interpersonal skills which include emotional self-awareness, stress management, anger and impulse control and intrapersonal skills which include social relationship, listening, empathy, decision making, problem solving and conflict solution. All are of the main concepts dealt in training.

2.8.3. Implementation Phase

During the implementation phase the training program was applied. The researchers clarified the educational materials using suitable strategies and content as follows. Teaching emotional self-awareness through the provision of different worksheets and different scenarios, identifying their feelings and others to recognize the different emotional states, recognize strengths and interests. Teaching stress management, anger and impulse control through the distraction techniques including counting, leaving the situation, breathing from diaphragm (in which the individuals inhale while counting to the number 3 in their minds and then exhale slowly through mouth counting to the number 5), and relaxation technique for calming the mind by providing worksheets, practical activities and the effect of stress on the body, thoughts, feelings, and behaviour are also clarified. Teaching different forms of communication through the presentation of papers, group games and activities for the practical exercises. Being an active listener was taught also to them practically and verbally and role playing was used for teaching this skill as two students were asked to talk to each other. In using solution instead of criticizing the students were asked to find a solution when a problem occurs instead of criticizing others (problem-solving skill). The definition of conflict, negative causes of conflict, the consequences of conflict resolution, conflict resolution
styles and how to use it will be becomes clear also was presented. The training program involved 12 sessions which directed to a small group (3-5) of the students (30-45 minutes each). At the beginning of the first session, an orientation to the intervention and its purpose taken place. Feedback was given at the beginning of each session about the previous one. Methods used to teach the content of the training program involved lectures, facilitation and group discussion, simulation and cognitive-behavioural skills, modelling and practice and the use of video for observation and feedback. The central role of the training program provider was to act as a skills trainer because the training program highlighted the gaining of intrapersonal, social and interpersonal skills.

2.8.4. Evaluation Phase

Evaluation was done by comparing total knowledge scores, EI scores and clinical performance scores. The post-test was done three months later after using of intervention through the same tools to assess the effect of the implemented training program.

2.9. Statistical Analysis

Data analysis was done using Statistical Package for Social Sciences (SPSS version 20). Descriptive statistics were done (e.g. frequency, percentages, mean, and standard deviation). Test of significance (paired t test, r test and chi-square test) was used to test the study hypothesis. Correlation coefficient was considered between students’ emotional intelligence and total knowledge scores and their clinical performance. A significant difference was considered at p-value \( \leq .05 \).

3. Results

Table 1 demonstrates demographic socio-demographic of the studied nursing students. It was clear that 52% of

<table>
<thead>
<tr>
<th>Items</th>
<th>No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>29</td>
<td>29.0</td>
</tr>
<tr>
<td>22</td>
<td>52</td>
<td>52.0</td>
</tr>
<tr>
<td>23</td>
<td>19</td>
<td>19.0</td>
</tr>
<tr>
<td>Mean ±SD</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>21.90 ± 6.89</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>8</td>
<td>8.0</td>
</tr>
<tr>
<td>Female</td>
<td>92</td>
<td>92.0</td>
</tr>
<tr>
<td>marital status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>4</td>
<td>4.0</td>
</tr>
<tr>
<td>Not married</td>
<td>96</td>
<td>96.0</td>
</tr>
<tr>
<td>Residence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural</td>
<td>22</td>
<td>22.0</td>
</tr>
<tr>
<td>Urban</td>
<td>78</td>
<td>78.0</td>
</tr>
</tbody>
</table>

Figure 1 portrays that, 81.8% of the studied nursing students had satisfactory level of knowledge pre-program. Meanwhile post program the satisfactory level become 72.4% of the studied nursing students.

Table 2 portrays general improvements (P= 0.000) in the mean scores of the subscales of the students' emotional intelligence that includes (perception of emotions, managing own emotions, social skills or managing others’ emotions, and utilizing emotions after the training program as compared to before the program.

Figure 1. Distribution of total score of studied nursing students’ knowledge regarding emotional intelligence pre and post program (no=100)
Table 2. Mean and standard deviations of the students’ emotional intelligence main subscales pre and post program (n=100)

<table>
<thead>
<tr>
<th>Emotional Intelligence Dimension</th>
<th>Max factor</th>
<th>Emotional Intelligence pre-program</th>
<th>Emotional Intelligence post-program</th>
<th>Paired t-test</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Mean ±SD</td>
<td>Mean ±SD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perception of Emotion</td>
<td>50</td>
<td>21.49±5.33</td>
<td>46.61±4.11</td>
<td>25.04</td>
<td>&lt;0.001**</td>
</tr>
<tr>
<td>Managing Own Emotions</td>
<td>45</td>
<td>13.80±6.08</td>
<td>39.30±3.15</td>
<td>19.25</td>
<td>&lt;0.001**</td>
</tr>
<tr>
<td>Social skills or Managing Others’ Emotions</td>
<td>40</td>
<td>19.40±5.28</td>
<td>33.89±2.63</td>
<td>17.47</td>
<td>&lt;0.001**</td>
</tr>
<tr>
<td>Utilization of Emotion</td>
<td>30</td>
<td>12.85±3.97</td>
<td>25.40±0.78</td>
<td>17.82</td>
<td>&lt;0.001**</td>
</tr>
<tr>
<td>Total Emotional Intelligence</td>
<td>165</td>
<td>67.54±18.83</td>
<td>145.20±10.74</td>
<td>22.63</td>
<td>&lt;0.001**</td>
</tr>
</tbody>
</table>

Figure 2. Distribution of total score of studied nursing students’ knowledge regarding emotional intelligence pre and post program (n=100)

Table 3. Mean and standard deviations of 6-DSNP among studied nursing students pre and post program (n=100).

<table>
<thead>
<tr>
<th>6-DSNP</th>
<th>Max factor</th>
<th>performance pre</th>
<th>performance post</th>
<th>Paired t-test</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Mean ±SD</td>
<td>Mean ±SD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teaching and collaboration</td>
<td>33</td>
<td>10.24±8.88</td>
<td>26.67±5.94</td>
<td>21.35</td>
<td>&lt;0.001**</td>
</tr>
<tr>
<td>Planning and evaluation</td>
<td>21</td>
<td>07.93±4.30</td>
<td>18.09±4.70</td>
<td>24.31</td>
<td>&lt;0.001**</td>
</tr>
<tr>
<td>Critical Care</td>
<td>21</td>
<td>05.11±6.48</td>
<td>16.69±3.69</td>
<td>19.82</td>
<td>&lt;0.001**</td>
</tr>
<tr>
<td>Interpersonal relations and communication</td>
<td>36</td>
<td>17.72±10.72</td>
<td>33.90±5.48</td>
<td>20.06</td>
<td>&lt;0.001**</td>
</tr>
<tr>
<td>Leadership</td>
<td>15</td>
<td>8.97±4.72</td>
<td>12.94±2.95</td>
<td>18.48</td>
<td>&lt;0.001**</td>
</tr>
<tr>
<td>Professional development</td>
<td>30</td>
<td>11.17±10.02</td>
<td>27.00±5.86</td>
<td>16.98</td>
<td>&lt;0.001**</td>
</tr>
<tr>
<td>Total 6-DSNP</td>
<td>156</td>
<td>61.14±41.34</td>
<td>135.29±26.49</td>
<td>21.823</td>
<td>&lt;0.001**</td>
</tr>
</tbody>
</table>

Figure 3. Distribution of the studied nursing students according to total score clinical performance among studied nursing students pre and post program (n=100)
Figure 2 shows that, 54% of the studied nursing students had high level of emotional intelligence pre-program. Meanwhile post program the high level become 77% of the studied nursing students.

Table 3 illustrates that a significant improvement was present (P< 0.00) before and after the program in relation to students’ clinical performance skills of 6-DSNP that include teaching and collaboration, planning and evaluation, critical Care, interpersonal relations and communication, leadership and professional development.

Figure 3 portrays that, 66.9% of the studied nursing students had good level of clinical performance post-program. Meanwhile in the pre-program stage the good level of clinical performance was 33.1% of the studied nursing students.

Table 4 indicates a significant relation (P< 0.05) between studied students' total scores of emotional intelligence & gender of students before and after the program. On the other hand, no significant relation (P > 0.05) was observed between students' total scores of emotional intelligence & their residence or marital status. Also, no significant relations (P > 0.05) between total scores of 6-DSNP and gender, residence or marital status before and after the program were found.

Table 5 indicates a positive correlation (P< 0.001) between total studied students’ scores of knowledge and total studied students’ scores of EI after the program. Moreover, no correlation was reported between total students’ scores of knowledge their total scores of EI before the program.

Table 6 indicates a positive significant correlation (P< 0.05) between total studied students' scores of EI and all subscales of 6-DSNP before the program. Moreover, a highly positive significant correlation (P<0.001) was reported between total students' scores of EI their subscales of 6-DSNP after the program.
4. Discussion

Emotional Intelligence are skills for living. Important to recognize our emotions, emotional self-control, handle relationships and recognize emotions in others. It is fundamental to success and leadership, and it can be learned. Karimzadeh, et al., 2012 [24]. EI should be learned and developed during clinical training in the undergraduate education. Teachers in clinical professions as medicine, nursing or dentists should consider EI as a key standard for student selection as many professional behaviors in health care may require abilities related to EI as: putting the patient needs ahead of their individual interests, fight to complete tasks at high standard nearly at all times. Victoroff & Boyatzis, 2013 [4]. Emotion is fundamental to nursing and community health nursing practice accordingly, EI is considered as a vital skill for nurses. It can affect the quality of their labor including clinical decision-making, critical thinking, and implementation of nursing care plan, communication and knowledge use in practice. Barkhordari, 2013 [25] Raising emotional intelligence amongst nursing students would improve their problem-solving skills and judgment abilities which in turn, lead to providing more qualified clinical services, so educational training courses, workshops and, seminars should be prepared definitely for all academic stages for more progress and improvement of these skills. In addition, EI ought to be considered for more integration in the undergraduate and graduate nursing courses. Abou Hashish & Baybeir, 2018 [26].

The current study had been evaluated the knowledge of the students toward EI before and after the training program, accordingly, the results of the current study pointed out that most of the studied students had a satisfactory level of knowledge about EI after the training program than pre-program. Their low scores of knowledge might be attributed to the severe deficiency of implementation of educational programs in this respect. The results of this study are consistent with the results of as a minimum three other studies. First, Redha et al., 2018 [27], they concluded that in order to increase the level of EI schools and colleges has to conduct training and awareness programs. Students can get trained by specialists and counselors who are trained in Emotional Intelligence. These experts can help students to know how they can improve their performance by applying Emotional Intelligence. If students understand, control and use their emotions effectively, they will significantly improve academic performance and thereby creating a positive working environment in future. Second (Gilar-Corbi, et al., 2018 [28] who had assessed EI training intervention among trainee teachers, found that participants of the experimental group accomplish a significant improvement in perceiving and understanding emotional intelligence in university students within the curriculum, without interfering with students’ academic performance and without overloading students with work outside the classroom. Third, Ulutas & Ömeroğlu, 2007 [29] who had evaluate "The effects of an EI education program on a subgroup of 40 students attended a 12-week emotional intelligence program". He found that an emotional intelligence education program contributed significantly to students' knowledge levels of EI.

The students' EI had been evaluated in the current research, in this regard, a significant overall improvements (P= 0.000) in the mean scores of the subscales of the students' emotional intelligence that includes perception of emotions, managing emotions, social skills or managing others’ emotions, and using emotions after the training program as matched to before the program. These results are in agreement with at least seven other studies. First, Gilar-Corbi et al., 2018 [30] who had conducted a randomized experimental Study of an EI training program using a multi methodological approach, found the effectiveness of their program for EI development across any of the three offered modalities (online, in the classroom, and coaching) with the highest impact on coaching and stated that EI is key to overcome the challenges that university students will face when they leave the classroom, through their careers, and in their personal and professional futures. Second, Oriol et al., 2016 [31] who had studied "Emotional creativity as predictor of intrinsic motivation and academic engagement in university students". Third, Mok et al., 2016 [32], they reported the alike as our results in higher education and also, the latter stated that EI is key to overcoming the challenges that university students will face in these periods. Fourth, Johnson, 2017 [33] who had conducted a qualitative study entitled understanding and applying EI of Tampa Veterans administration hospital employees and results confirm significant benefits for participants with increased EI competencies of self-awareness and self-management of emotions, workplace relationships led to benefits including enhanced relationships, teamwork, and the ability to manage stress and change. Fifth, Veiseh et al., 2015 [34] who determined the impact of training life skills on emotional, spiritual and happiness intelligence of high school and pre-university students. Their study results showed that training life skills has significantly increased EI and its components, management of stress, interpersonal skills, general mood, adaptability and intrapersonal dimensions. The sixth, Karimzadeh et al., 2012 [24] Who study the effect of social emotional skills training to improve general health & Emotional Intelligence in the primary teachers and their results revealed that training had significant effect in increasing social emotional skills and its components on teacher experimental group. The seventh, Motamedi et al., 2017 [35] Who develop an EI training program and evaluate its efficacy on increasing EI of adolescents with emotional and behavioural problems that living in single parent families. They shows increase in the means in nearly all subscales of the experimental group after joining in training (post-test) and a minor decrease in some of the subscales in the follow-up. In other words participants of the experimental group afterward the intervention program have stated more emotional skills. Moreover, total score of EI had been evaluated in the current research before and after the training program. Where more than three quarters of the studied students had high score of EI after the training program, while before the program about half of them had high score of EI. This finding shows the efficiency of the training program. In this respect Bidabadi et al., 2016 [36] who had conducted a quasi-experimental project to evaluate life skills training on improving EI in undergraduate.
students of Isfahan. Their study results showed that life skills education, with an stress on communication abilities, was effective in the total score of EI. In addition, Poonamallee et al., 2018 & Gheitarami et al., 2017 [37,38] The former, assessed their emotional and social intelligence before and after the dharma life program using the emotional and social competency inventory and found asignificant positive effect on emotional and social competency scores that offers a new avenue for improving emotional intelligence competencies. The latter, conducted a study of life skills training on self-efficacy and EI among high school students in Urnia. They found experimental group had significantly higher emotional intelligence scores in companion with the control group Moreover, numerous investigations have worked in the similar line on the fruitful implementation of EI training programs in adolescence by López-González & Oriol, 2016 [39] and in adulthood within the university education at master's-level by Torrecilla-Sánchez et al., 2018 [40] These results prove that EI can be improved with diverse methods and scales.

Furthermore, the finding of present study pointed out that, a important improvement was existing (P< 0.00) before and after the training program in relative to students ‘clinical performance abilities of 6-DSNP that include teaching and collaboration, planning and evaluation, critical care, interpersonal relations and communication, leadership and professional development. This improvement in clinical performance is directly due to improvement in students ‘EI after the program as emotional intelligence by definition deals with perception of emotions, managing own emotions, social skills or management others’ emotions, and using emotions and all of these qualities are more important in community health nursing practical training that improves students ‘clinical performance skills . These results are consistent with the results of these researches. The first, Gordon-Handler et al., 2018 [41] they conducted a study to explore the relationship between supervisor’s perception of student EI and clinical performance across practice areas using fieldwork performance evaluation (FWPE).The second, Taťazoli et al., 2012 [42] who had studied the correlation between EI and clinical performance of midwifery students in clinical unit and found a significant and direct relationship between total grade of students’ EI and clinical performance in training field. Also, it concluded that students who have higher EI could have better clinical performance. The third, Michelangelo., 2015 [43] in his meta-analysis study of EI related nursing skills and behaviors as nursing student performance. He concluded that the 100% positive results for the effect of EI and its efficiency in improving clinical abilities necessary for nurses and nursing students should not be ignored when they come from 395 diverse studies. The fourth, Cheraghi et al., 2019 [44] they evaluate the effects of the clinical teaching associate (CTA) model on clinical skills and satisfaction with clinical education among nursing students. They found positive effects of the CTA model on nursing students' clinical skills and satisfaction. The fifth, Rankin., 2013 [45] found a significant predictive correlation between EI and all three programs results, one of these programs is practice performance that increased after the program with EI increasing.

Our study shows a significant relation (P< 0.05) between studied students' total scores of EI & gender of students before and after the program. These results go in line with Codier, et al., 2015., Kumar et al., 2016 & Snowden et al., 2015 [46,47,48], they conducted studies of dental and nursing students. This group of studies reveals significant relationship among the gender of the studied participants and their overall EI score. Moreover, previously mentioned research by Redha et al., 2018 [27] their results illustrated that the students have moderate level of emotional intelligence. Females students possess higher level of EI when compared with males. In addition Marvos & Hale, 2015 [49]. In their study of EI and clinical performance/retention of nursing students. They found that gender negatively and significantly correlated with managing emotions at the P < 0.05. Moreover, our study revealed that no significant relation (P > 0.05) between students' total scores of emotional intelligence & their residence or marital status. On the same line, Caboral-Stevens & Sim, 2016 and Ibrahim et al., 2016 [20,50] had recorded the same results. Where is the former had evaluated "emotional intelligence scores of first year advanced practice nursing students" they found no correlation between EI scores and socio-demographic variables, involving the marital status, birthplace, race, and religion. However, they establish that the male students have higher EI scores than the female students. The latter, Revealed that there was no a statistically significant relation between students EI and their marital status or residence. Moreover, Saeid et al., 2013 [51] tested the relationship between marital status and the total score of EI. They found no significant association between these mentioned variables. Conversely, as a minimum two studies found to be in disagreeing with the current study result. First, Afsul, 2013 [52] found a significant difference between urban and rural students on the diverse areas of EI, where urban students had good EI than rural students. Second, Ealias &George, 2013 [53] found a significant difference on the EI between married and unmarried study subjects.

The findings of our study also, revealed that no relation (P > 0.05) between studied students' total scores of 6-DSNP & gender or marital status of students before and after the program. In this regard two other researchers found the same results, Poorgholami et al., 2016 [54] in his study of nursing students' clinical performance and professional self-concept .They found the same results that no relationships were found between sex & marital status with 6-DSNP total scores (p>0.05).In addition, Al-Makhatia et al., 2014 [55] they study job performance among nurses working in two diverse health care levels, eastern Saudi Arabia using the 6-DSNP. They found that there was no statistical significant relationship between performance level and any of the personal or work characteristics of nurses working in primary care level.

The correlations of the studied nursing students’ overall score of EI and their subscales of 6-DSNP before and after program were took place in the this study. Consequently, there was a positive significant correlation (P < 0.05) between total studied students’ scores of EI and all subscales of 6-DSNP before the program. Moreover, a highly positive significant correlation (P < 0.001) was reported between total students’ scores of EI their subscales of 6-DSNP after the program. These results
were reinforced by at least three further researches. First, the earlier stated Marvos & Hale, 2015 [49] who revealed that the EI ability “managing emotions” was positively and significantly correlated with the clinical performance task that demonstrated at the P < 0.05 level of significance and means that participants who had higher managing emotions scores also had higher ratings for their ability to respond in the clinical setting. Second Al-Hamdan et al., 2016 [56] who had check the relationship between nurses performance and EI. Third, Cherry et al., 2014 [57] they had conducted a study to assess relationships among attachment, EI and clinical communication. They found a significant positive relationship between communication skills and total EI amongst study participants. On the other hand, the study results by Vahidi et al., 2016 & Healy et al., 2013. [58,59] were inconsistent with this result, where is the former had evaluated the relationship between emotional intelligence and perception of job performance among nurses in north west of Iran. The latter, conducted a study entitled EI and its relation to nursing performance among nurses at Mansoura university hospital and urology and nephrology center. Based on findings of both studies, there was no significant relation between EI and nurses’ perception of nursing performance.

5. Conclusion

Based on the results of the current study, it can be concluded that, the above-mentioned findings proved and reinforced the research hypothesis. The emotional intelligence skills training program was efficient in improving nursing students’ emotional intelligence and their clinical performance during community health nursing practical training. This has been observed in increasing students’ emotional intelligence and their clinical performance after the training program.

6. Recommendations

Based on findings of this study, the following recommendations can be proposed:

- Training courses and seminars about EI should be conducted for the community health nursing students in order to develop students’ EI and their clinical performance.

Further study

- The topic of EI should be included as a basic component in the community health nursing curriculum for undergraduate and graduate nursing curriculum in order to improve students’ EI and their clinical performance

- Replication of the present study on larger sample, different settings and courses and apply different program with longer follow-up periods.

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