A study on the relationship between Self-efficacy of Clinical practice and Nursing Students’ Creativity

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Abstract

Education Centers that focus on results-oriented training make a huge effort to support learning knowledge, skill, attitude and necessary competencies by students. However, proper training focuses on expanding knowledge, skill and attitudes, scholars increasingly focus on the role of thoughts, attitudes and cognitive processing of students on learning processes. Self-efficacy is of the important elements in learning process. Self-efficacy theory has rooted in Bandura’s Social cognitive theory in which a comprehensive framework to understanding social behavior and define humans’ performance is proposed. In other words, creativity is another element among those elements associated to process of learning and clinical efficacy. As creative abilities can be useful in nursing profession, definitely it can state that creativity affects academic achievements. Hence, given the effectiveness of clinical self-efficacy as discussed in this study, it is essential to act for enhancing creativity in students if required, concerning provisions to increase self-efficacy of clinical practice. Materials and methods: in this analytic-descriptive study, 60 nursing students were selected so as to examine the relationship between Self-efficacy of Clinical practice and Nursing Students’ Creativity. Conclusion: research findings indicated that increasing self-efficacy in students can be associated to increasing creativity, and as creativity is an element associated to different elements, thus it can state that increasing self-efficacy in individual can be resulted in increasing the ability to generate various ideas in exposure to new conditions that required problem resolving, where such an ability associates to fluidity element in creativity. Key words: creativity, job self-efficacy, Self-efficacy of Clinical practice

Introduction

Today, development and growth in modern technologies and human knowledge have caused the world becomes complicated and changing [1] [2]. This can be observed especially in clinical training, and as nursing training focuses on clinical training, thus development goes true in this area [3]. Further, it can state that any clinical experience is not just a knowledge-based learning or a practical skill, but student’s trust on his professions and abilities must be increased, in order that he reaches to the highest level of knowledge that is effective learning and professional competence[4][5]. Clinical training must increase nursing students’ skill in order that quality of nursing clinical performance increases [5]. Indeed, the fundamental aim of Practicum and internship courses for nursing students has been proposed to reach the aims in harmony with development in technology. Scholars believe that measuring confidence level in clinical skills can be a measure for self-efficacy of students[6]. Self-efficacy and factors affecting it have been drawn into attention by psychologists and experts at education center for several years. In the past, experts’ and researchers’ attitude has been changed from behavioral elements to cognitive elements. In this sense, Social cognitive theory that examines action determinants in cognitive, meta-cognitive and Incentive views, have attracted so many views[7]. One theory that can be used to measure confidence level in clinical skills of students is bandura’s Self-efficacy theory[8]. Bandura is a theorist at social and cognitive area who has examined many effective approaches. He defines Self-efficacy as a person’s perception and judgment on his abilities and skills to do the tasks that are required in necessary occasions. On the other hand, Self-efficacy affects performance in case the person owns necessary skills to carry out a particular thing, and enough motivated to do it as required. Aside from the goal, Bandura knows the sense of Self-efficacy as one of the most important elements affecting Self-organization [9]. Bandura defines self-efficacy as the person’s attitude towards the ability to do the given functions [10]. In other words, self-efficacy refers to the person’s understanding towards the ability for effective performance or doing specific duties [11]. Self-efficacy is an Intermediary between knowledge and behavior, that is intertwined with professional competence [12][13]. Strong sense of self-efficacy leads to Effort and persistence to gain success [10]. Bandura believes that those ones who have a high self-efficacy, select more challenging and greater aims, believe more in the themselves, express more effort and persistence, and have a better memory, apply more useful learning approaches, and thereby act better in their life. Further, self-efficacy is the feeling of competence, sufficiency and the ability to adapt with life that providing and maintaining performance measures lead to increasing self-efficacy, and inability in providing and maintaining such measures reduce self-efficacy. Bandura has proposed four main elements for self-efficacy including the person’s successes, Experience of
succession, Verbal persuasion, and physical, emotional and ethical states, where the fourth element in evaluating his ability has been regarded[15]. Scholars in their study have concluded in their study that clinical self-efficacy is categorized in four classifications or themes entitled “examine patient”, “diagnosis”, “planning for cares”, “performing cares”, and “evaluation of cares”[19]. On the other hand, one of the elements associated to learning process include element of creativity[15]. In view of some authors, creativity is an element that is intertwined with the cognitive and emotional elements. Hence, creativity is not a single-sided concept, where multi-dimensional cognitive and emotional abilities lead to emerging creativity. Creativity means the ability to think about affairs by means of abnormal approaches and have access to unique approaches for problems. Hence, creativity is interpreted as the person’s ability and capacity to generate new ideas and outcomes. In other words, creativity causes the person adapts himself with environmental conditions and situations in a different way but useful. Hence, scholars believe that creativity except for including inferential ability comes with imagination and divergence[16]. Scholars believe that creativity since 1950 to 1999 has passed three common processes; the first relates to study on personality. They believe that studies on creativity during the year 1950 have been based on creative individuals’ personality. During this year, study on creative individuals’ personality characteristics has been considered in most of the studies on creativity. The second process relates to recognition. In the second process, study on perceptional, thinking and intellectual characteristics of creative individuals prevailed. Nonetheless, a great change appeared in the second process has been regarded as changing psychometric approach of creativity as the one proposed by Torrance in during the years 1960-1970, that led to awareness of creative mind in terms of intellectual and cognitive abilities. Further, in the third process, it was addressed to training and stimulating creativity. Hence, a fundamental aim in training that is recognition of individuals’ ability can affect developing individuals’ ability. Here, as creativity increases in students, their views towards surrounding area can be expanded, and their thought can be more accurate and their view can be more rational, so that their relationships with others will be observed with code of ethics. Guilford knows creativity as divergent thought consisting of four elements of fluidity, flexibility, expansion and innovation, and defines them as follows: fluidity means the ability to generate various ideas and responses, flexibility means the ability for various responses, expansion means attention to details on ideas and innovation means the ability to generate new outcomes and ideas. Indeed, this goes true in Medical and nursing profession, where on better human relationships and enhancing high quality services are attributed, so that it can achieve aims by nurturing creative individuals. To achieve this aim, this study aimed to investigate the role of job Self-efficacy in developing creativity in nursing students, in order to propose more creative humans to health care arena as seen the relationship between Self-efficacy and Creativity, where this comes true by enhancing quality of education level.

**Method**

This study is an analytic-descriptive research which addresses the relationship between Self-efficacy of Clinical practice and Nursing Students’ Creativity. To examine this relationship, 60 nursing students during the term studying their courses, were selected, and then the questionnaire including personal information was provided for the students, followed by proposing a definition for research aim and attracting students’ satisfaction. Thereafter, Abedi’s creativity questionnaire standardized in 1994 was given to samples, and then clinical Self-efficacy questionnaire confirmed in 2009 by its validity, was given to the students. It should be noted that, to avoid bias, the questionnaire was given to the samples by a person who was totally unaware of research.

**Findings**

To achieve the general aim of research “determine the relationship between Self-efficacy of Clinical practice and Nursing Students’ Creativity”, the results from research findings are discussed. In this study, 60 nursing students were examined, that about 60% of these students were studying the last term. Most of them were in range of 21-23 years old, and most of them were male and single concerning their marital status. Further, most of them were unemployed, and less percent of the employed ones engaged in their job for less than 12 months. Further, 92% of students had not previously engaged in job, and the remained percent has stated that had job experience lower than 12 months. The extent to which these students desired to their field of study was average, and mean of total average of these students has been about 16.20, since the researchers believe that infrastructural factors affect creativity and Self-efficacy, thus demographic data for the samples under study due to the relevancy between the present study and other related studies, is measured. Furthermore, to achieve one of the aims of study “determine the Self-efficacy of Clinical practice in Nursing Students”, the findings of research indicated
that students at the research area had the highest level (72.58±17.95) and had the lowest level (17.84±6.32) in diagnosis area. Refer to table 1 for this.

Table 1. Comparing the areas of clinical Self-efficacy with each other

<table>
<thead>
<tr>
<th>Self-efficacy areas</th>
<th>Minimum score</th>
<th>Maximum score</th>
<th>Mean±SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Examination</td>
<td>24</td>
<td>109</td>
<td>72.58±17.95</td>
</tr>
<tr>
<td>Diagnosis</td>
<td>0</td>
<td>30</td>
<td>17.84±6.32</td>
</tr>
<tr>
<td>Planning</td>
<td>11</td>
<td>59</td>
<td>36.34±11.23</td>
</tr>
<tr>
<td>Implementation</td>
<td>36</td>
<td>99</td>
<td>69.14±15.43</td>
</tr>
<tr>
<td>Evaluation</td>
<td>12</td>
<td>60</td>
<td>38.56±11.57</td>
</tr>
</tbody>
</table>

Further, related to another aim of research “determine the relationship between demographic characteristics and nursing students’ Clinical Self-efficacy”, Pearson test indicated that there is no significant relationship between Clinical Self-efficacy and the variables age, the number of working months in current and former job, and the average in the previous term, yet a poor relationship exists between total average of students and Clinical Self-efficacy (P=0.01, r= -0.37). concerning the relationship between the variable Clinical Self-efficacy and qualitative demographic characteristics including awareness and desire, the Spearman test was applied, indicated that a significant relationship exists between awareness and Clinical Self-efficacy (p<0.05), but this relationship has not been reported significant between awareness and extent of Self-efficacy. Creativity is another element associated to Self-efficacy. Concerning another aim of research “determine nursing students’ creativity”, the findings indicated that mean and standard deviation of creativity in students have been 78.48±15.45, and as the creativity includes the areas with the themes fluidity (the ability to generate various ideas and responses), flexibility (the ability for various responses), expansion (attention to details on ideas) and innovation (the ability to generate new outcomes and ideas) [20], thus creativity was examined at each area in separate. The results indicated that the samples under study in terms of fluidity area of creativity have been in the highest level, and in the lowest level in terms of expansion area; refer to table 2 for this.

Table 2. Comparing creativity areas of nursing students

<table>
<thead>
<tr>
<th>creativity areas</th>
<th>Minimum score</th>
<th>Maximum score</th>
<th>Mean±SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>fluidity</td>
<td>16</td>
<td>42</td>
<td>29.90±5.84</td>
</tr>
<tr>
<td>flexibility</td>
<td>5</td>
<td>22</td>
<td>13.04±3.84</td>
</tr>
<tr>
<td>expansion</td>
<td>7</td>
<td>22</td>
<td>15.30±3.43</td>
</tr>
<tr>
<td>innovation</td>
<td>8</td>
<td>32</td>
<td>20.24±15.11</td>
</tr>
</tbody>
</table>

Further, Pearson test indicated that there is no significant relationship between creativity and the variables age, the number of working months in current and former job, and the average in the previous term, that it can conclude that the factors including students’ average and/or their working experience has no role in their nursing profession and/or their age in increasing or decreasing creativity. Further, there is no relationship between creativity and awareness and desire of students that have been qualitative variable. Hence, it can conclude that creativity is not associated to awareness and desire, where ANOVA test assured this fact. Furthermore, this relationship was measured with other infrastructural variables, where Eta test indicated that creativity only associates to person’s current job, and this relationship is not correlated with other infrastructural variables including education course, gender, marital status and job. Finally, it was clarified that there is a significant relationship between creativity and clinical Self-efficacy (p<0.05), thus it can conclude that the individuals with high Clinical Self-efficacy are more creative; refer to table 3.

Table 3. Correlation between creativity and Self-efficacy of nursing students

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean±SD</th>
<th>Pearson correlation test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-efficacy</td>
<td>243.46±54.47</td>
<td>P=0.001* r=0.52</td>
</tr>
<tr>
<td>creativity</td>
<td>78.48±15.45</td>
<td></td>
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</tbody>
</table>

Conclusion

Fatemeh Cheraghi et al. in a study entitled codification and Psychometrics of clinical practice of Self-efficacy means in nursing students in 2009, stated that clinical Self-efficacy means include give components including “examine patient”, “diagnosis”, “planning for cares”, “performing cares”, and “evaluation of cares”. Scholars believe that skill of clinical care is one of the main competencies of
professional nursing throughout societies [22, 24]. Rubenfeld and Scheffer believed that thought and the method to do nursing duties are combined in nursing process, mentioned that nursing is a framework through which nurses determine the abilities and health problems of patients, which it persuades the students to use their knowledge, the ability for decision making and clinical judgment to detect care needs and health problems. Findings of this study indicated that students had the highest ability at the stage of examination of disease and the lowest ability in the diagnosis of disease, concerning students’ Self-efficacy areas. Hence, it can state that all the aspects are not taken into consideration to enhance students’ Self-efficacy in education affairs, where this can be seen in failure of treatment process areas. Hence, it is essential to address nurturing all these areas based on authors' view so as to enhance students’ Self-efficacy. Furthermore, the results indicated that there is not a significant relationship between clinical Self-efficacy and the variables gender, the number of working months in the current and former job, and the average of last term, yet there is a poor relationship between the total average of students and clinical self-efficacy (p=0.01, r= -0.37). hence, it can conclude that low average of student is not the reason for reducing his clinical efficacy, where this result is against the results of study by Zeinalipoor and his colleagues who carried out a study entitled public and academic Self-efficacy of students and its relationship with their academic performance in 2009. They stated that there is a positive significant relationship between public Self-efficacy and academic achievement of students, concluded that the individuals who have the higher score for Self-efficacy, enjoy higher academic achievement [26]. Furthermore, findings of this study indicated that there is a significant relationship between awareness and Self-efficacy (p<0.05), but the relationship between desire and Self-efficacy is not significant. Hence, it can deduce that the ones with higher Self-efficacy enjoy higher awareness about their field of study, where this is resulted by doing ANOVA test. Further, this relationship concerning infrastructural areas was measured, indicating that a significant relationship exists between clinical Self-efficacy and marital status and current job of person, yet such a relationship does not exist for gender, academic course and former job. Since nurturing creative abilities is of important research aims, and creativity affects academic achievement concerning various studies, attention to this ability in students and its effect on learning process and intermediary variables seems essential. Santrock knows the ability as thinking about affairs by means of new approaches and access to unique approaches for problem resolving[20]. They believed that creativity encompasses areas including fluidity (the ability to generate various ideas and responses), flexibility (the ability for various responses), expansion (attention to details on ideas) and innovation (the ability to generate new outcomes and ideas). Ranco also knows creativity as a mental process that leads to problem resolving, conceptualization, forming artistic forms and products that are unique [16]. Hence, as each of creativity areas evaluated in the samples under study, it was clarified that they were in the highest and lowest levels in terms of fluidity and expansion areas, respectively, where thus finding has indicated that students in their ability to generate various ideas and responses are in the highest level, and in the lowest level in terms of their ability to attention to the details on ideas. These results are in consistent with the results from the study by Kazemi and Shafagh who conducted a study entitled “the relationship between Self-efficacy and cognitive and emotional creativity of students in 2012”, so that the scholars perceived from this study that the highest mean among cognitive creativity components relates to fluidity and the lowest relates to expansion[5]. Some of these findings are totally against the findings of this study, so that the researchers state in their study that creativity affects academic achievement, but, this study indicates that student’s average is not related to the extent of his creativity. Finally, findings indicated that a significant relationship exists between creativity and clinical Self-efficacy of students (p<0.05), and this findings is based on the finding of study by Kazemi and Shafagh(2012). They perceived in their study that increasing Self-efficacy can be resulted in increasing the ability to generate various ideas and responses in exposure to new conditions that require problem resolving, where such an ability associates to fluidity component in creativity[15]. In this sense, it can perceive from the results of research that a significant relationship exists between creativity and areas of clinical Self-efficacy (p<0.05), meant that increasing Self-efficacy in each area leads to increasing creativity. Furthermore, as stated, the samples under study found with the highest and lowest scores in the area of examination and diagnosis, respectively. Findings of this study indicated that examination area relating to Self-efficacy has the highest correlation coefficient (r=0.52) and the lowest correlation coefficient (r=0.34) with the creativity. Furthermore, there is a significant relationship between clinical Self-efficacy and each of the areas of creativity including fluidity (the ability to generate various ideas and responses), flexibility (the ability for various responses), expansion (attention to details on ideas) and innovation (the ability to generate new outcomes and ideas) (p<0.05), that the correlation...
coefficient for this relationship has the highest score with flexibility area of creativity ($r=0.50$) and the lowest scores with the fluidity area ($r=0.34$). Hence, to define the findings of this study, it can propose that attention to increased factors of Self-efficacy in students can be associated to increasing creativity. In following, Jimson’s view states that creativity is an elements that is intertwined with many other components, so that it can state that increasing Self-efficacy can be resulted in increasing the ability to generate various ideas and responses in exposure to new conditions that require problem resolving, where this ability associates to the fluidity area of creativity[27, 28,29].

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