

The Relationship between Critical Thinking Skills and Self Efficacy among Nursing Students

Thesis

*Submitted for Partial Fulfillment of Master Degree
(Nursing Administration)*

By

Sabah Mohammed Ragab

(B.Sc. Nursing)

**Faculty of Nursing
Ain Shams University
2018**

The Relationship between Critical Thinking Skills and Self Efficacy among Nursing Students

Thesis

*Submitted for Partial Fulfillment of Master Degree
(Nursing Administration)*

Supervisors

Prof. Dr. Mona Mostafa Shazly

*Professor of Nursing Administration
Faculty of Nursing - Ain Shams University*

Assist. Prof. Dr. Hemat Abd-ElAzeem Mostafa

*Assistant Professor of Nursing Administration
Faculty of Nursing - Ain Shams University*

**Faculty of Nursing,
Ain Shams University
2018**

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قالوا

لَسْبَدَانِكَ لَا نَعْلَمُ لَنَا
إِلَّا مَا عَلَّمْتَنَا إِنَّكَ أَنْتَ
الْعَلِيمُ الْعَظِيمُ

صدق الله العظيم

سورة البقرة الآية: ٣٢



Acknowledgment

Foremost, I feel always indebted to Allah to whom I relate any success in first and achieving any work in my life.

Really, I can hardly find the words to express my gratitude to Dr. Mona Mostafa Shazly, Professor of Nursing administration, faculty of Nursing, Ain Shams University, for her great encouragement, excellent guidance, powerful support, valuable constrictive advices and generous help, precious time, relentless mentoring and valuable support.

I would like also to express my gratitude to Dr. Hemat Abd ElAzeem Mostafa, Assistant Professor of Nursing Administration, Faculty of Nursing, Ain Shams University, for her assistance, continuous directions and support throughout the whole work,

Special thanks are also extended to all the participants in this study who gave their time and cooperation during data collection.

✍ Sabah Mohamed Ragab.

List of Contents

Subjects	Page
• Introduction.....	1
• Aim of the study	7
• Review of literature	8
Critical thinking	
- Theoretical background of critical thinking	8
- Academic discipline of critical thinking.....	11
- Core critical thinking skills.....	13
- Characteristics of critical thinker.....	18
- Critical thinking in nursing practice	19
- Critical thinking in nursing education	20
- Importance of critical thinking	23
- Teaching strategies that can used to promote critical thinking	24
Self-efficacy	34
- Theories of self-efficacy	37
- Self-efficacy components	43
- Sources of self-efficacy	45
- Efficacy -activated processes.....	50
- Importance of self-efficacy.....	52

List of Contents (Cont...)

Subjects	Page
- Methods for building self-efficacy	53
- Self-efficacy related to academic and task performance.....	54
- Self-efficacy in real life situation	55
- Relationship between critical thinking skills and self-efficacy	55
• Subjects and Methods	58
• Results	68
• Discussion	107
• Conclusion	120
• Recommendations	121
• Summary	123
• References	126
• Appendices	150
• Arabic Summary	٤-١

List of Tables

No	Table	Page
<i>Tables of Review</i>		
I	Core elements of critical thinking skills	17
<i>Tables of Subjects and Methods</i>		
II	Items of critical thinking questionnaire.	61
III	Items of self efficacy inventory.	62
IV	Cronbach's alpha-test	64
<i>Tables of Results</i>		
1	Socio demographic characteristics of nursing students.	69
2	Family' characteristics among nursing students.	71
3	Nursing students' agreement upon tendency to evaluate external subjects as a critical thinking skill.	73
4	Nursing students' agreement upon correct use of language in listening, writing and reading as a critical thinking skill.	75
5	Nursing students' agreement upon tendency to discern matters as a critical thinking skill.	77
6	Nursing students' agreement upon tendency to discuss matters objectively as a critical thinking skill.	79
7	Nursing students' agreement upon caring about judgment of certain phenomena as a critical thinking skill.	81
8	Nursing students' agreement upon tendency to reach conclusion correctly as a critical thinking skill.	82
9	Nursing students' agreement upon caring about observation of matters and subjects as a critical thinking skill.	83
10	Nursing students' agreement upon openness and flexibility in dealing with matters as a critical thinking skill.	84
11	Nursing students' agreement upon identifying relations from subjects as a critical thinking skill.	86
12	Nursing students' agreement upon tendency to avoid rumors in judgments as a critical thinking skill.	87
13	Nursing students' agreement upon adaptation to new situations as a critical thinking skill.	88
14	Nursing students' agreement upon providing innovative solutions as a critical thinking skill.	89

 List of Tables

No	Table	Page
15	Percentage distribution of academic tasks among nursing students.	92
16	Percentage distribution of social activities among nursing students.	93
17	Relation between total critical thinking skills and socio demographic characteristics of nursing students.	96
18	Relation between total self-efficacy and socio demographic characteristics of nursing students.	98
19	Correlation matrix of nursing students' critical thinking skills items.	100
20	Correlation of nursing students' self-efficacy dimensions.	102
21	Correlation between critical thinking skills and self-efficacy among nursing students.	103
22	Correlation of nursing students' critical thinking skills scores and their age, sex, educational grade and social status.	104
23	Correlation between nursing students' self-efficacy scores and their age, sex, educational grade and social status.	106

List of Figures

No	Figure	Page
<i>Figures of Review</i>		
I	The social cognitive theory process of goal realization	39
<i>Figures of Results</i>		
1	Levels of critical thinking skills dimensions among nursing students.	90
2	Total levels of critical thinking skills among nursing students.	91
3	Percentage distribution levels of self-efficacy dimensions among nursing students.	94
4	Percentage distribution of total self-efficacy levels among nursing students.	95

List of Abbreviations

Abb.	Meaning
CT	Critical Thinking
SE	Self-Efficacy
PQ4R	Preview, Questions, Read, Reflect, Recite and Review
LMS	Learning Management System
DSI	Differentiated Science Inquiry.
DL	Differentiated Learning (DL).
PSE	Perceived Self- Efficacy

Abstract

Background: Critical thinking is determined as a set of skills, consisting of cognitive components that it takes self-efficacy beliefs to make good use of these skills. **Aim:** this study aimed to assess the relationship between critical thinking skills and self-efficacy among nursing students. **Design:** A descriptive correlational research design was used. **Setting:** The study was conducted at technical Nursing Institute at El-Fayoum University. **Subjects** included 179 nursing students (89 students in the first year and 90 students in the second year). **Tools of data collection:** Data were collected by using two tools a critical thinking skills questionnaire and self-efficacy inventory. **Results:** 91.6% of nursing students had achieved low mean scores in all dimensions of critical thinking skills and 50.8% of them had moderate perception level of total self-efficacy. There were no statistically significant differences between total critical thinking skills and self-efficacy and different grades of nursing. There were statistical significant relation between total critical thinking skills and age of nursing students. There were no statistically significant relations between total self-efficacy and socio demographic characteristics of nursing students. **Conclusion:** There were statistically significant negative correlations between total critical thinking skills except tendency to evaluate external subject and total self-efficacy. **Recommendations:** nursing students have to attend training program in critical thinking skills and self-efficacy and conducting a study on factors affecting nursing students' perception regarding self-efficacy.

Key words: Critical thinking skills-Nursing students-Self efficacy.

Introduction

Critical thinking is a cognitive process that represents the capacity to reflect upon reasoning with the aim of minimizing the errors in decision-making (*Chao et al., 2013*). It is increasingly important to train professionals that are critical, reflective and able to make complex decisions based on knowledge of scientific evidence, the development of critical thinking (CT) skills has become a prerequisite for safe and effective clinical practice (*Pitt et al., 2016*).

Critical thinking as a metacognitive internal capacity is the deliberate determination of whether we should accept, reject or suspend judgments about a claim and of a degree of confidence with which we accept or reject it. Critical thinking is the ability to analyze facts, generate and organize ideas, defend opinions, make comparisons, draw inferences, evaluate arguments and solve problems (*Nosratinia, 2018*).

Critical thinking includes concepts of skill and disposition. Critical thinking skills refer to the ability to think critically through certain mental methods. Critical thinking disposition is the desire and motivation of the individual to think critically. Critical thinking disposition is

to make decisions and solve problems in accordance with consistent internal motivations. Critical thinking disposition is necessary for critical thinking skills. It can thus be stated that these two concepts cannot be separated from each other by clear lines, but have a pattern in the context of cause and effect (*Cansoy, 2017*).

Critical thinking has been defined as an important educational goal and is understood to mean reasonable reflective thinking that is focused on deciding what to believe or do. Critical thinking skills were specified in six elements, these elements include determining the credibility of sources and observations, inferring and judging deductive conclusions, definitions and identification of assumptions, planning induction experiments and predicting probable consequences, inferring and judging inductive conclusions and semantics (*Thaiposri, 2017*).

Critical thinking is determined as a set of skills, consisting of cognitive components that it takes self-efficacy beliefs to make good use of these skills, people can have the same level of cognitive skills but perform differently, they state that skills such as critical thinking skills alone are not enough to perform well in the

workplace, as a person must also be disposed towards using the critical thinking skills that have been learned reflecting on how critical thinking skills are applied in various situations is helpful in building self-efficacy beliefs (*Gloudemans, 2013*).

Self-efficacy (SE) is an important dimension in the learners' personality because of its impact on his behavior and actions. Self-efficacy plays a vital role in directing and determining the learners' behavior, the learned acts based on own thoughts about himself this means an interchangeable process between the way and how to perceive himself (*Yadak, 2017*).

Self-efficacy is the judgment of an individual on their own capability to organize events and success in delivering a certain performance. Self-efficacy is addressed at two levels, namely, self-efficacy expectation and result expectation; the former being about the individuals sufficiency to fulfill a work or task while the latter comprises an individual's beliefs on certain results that should arise from actions (*Safek, 2016*).

Self-efficacy is defined as the belief in one's competence to tackle difficult or novel tasks and to cope with adversity in specific demanding situations. It reflects

the belief in one's capabilities to organize the courses of action required to produce given attainments. Self-efficacy makes a difference in how people feel, think, and act. Those with high self-efficacy beliefs want to overcome difficult situations, Increasing self-efficacy enhances the sense of self-control and helps one to perform at a higher level reasoning, inference, interpretation and open-mindedness. It requires knowledge of the area about which one is thinking and results in safe, competent practice and improved decision (*Gloudemans, 2013*).

Self-efficacy is rooted in social cognitive theory which argues that self-beliefs area is a major determinant of performance; according to self-efficacy theory, individuals vary in their beliefs about the level of control they have over courses of actions needed to attain successful outcomes. Self-efficacy is distinct from actual capabilities required to perform a task, but SE beliefs can be viewed as proxy indicators of effective performance (*Qualter, 2015*).

The four main sources of self-efficacy are: mastery experience, vicarious experiences, verbal persuasion, and psychological responses to experiences. Mastery experiences are situations in which people perform successfully. Vicarious experiences are situations in which