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THE EFFECT OF DELIBERATIVE DISCUSSION TEACHING STRATEGY ON NURSING STUDENTS' LEARNING MOTIVATION

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Abstract: Deliberative discussion is an important active approach and cooperative teaching strategy that encourages and motivates learners to participate and share in their learning decisions. This is an experimental study aimed at determining the effect of deliberative discussion as a teaching strategy on nursing students' learning motivation. The study was conducted at the Faculty of Nursing in the Alexandria University, Alexandria, Egypt. The sample included all master degree nursing students (60) who enrolled in the first semester of the master program of a health education elective course. They were divided randomly into study and control groups. The study group was assigned to attend three deliberative discussion sessions about ethical principles and code of ethics in health education within a period of three weeks while control group left to attend the same topic, in the same period, but by a traditional teaching method. Motivated Strategies for Learning Questionnaire (MSLQ), used for data collection. The researcher found that there was a statistically significance difference in MSLQ scores in between the study and control groups in favor of deliberative one. The results revealed an essential value for nursing educators to develop awareness of the usefulness of deliberative discussions as an effective teaching strategy to enhance learning' motivation among master nursing students.

Key Words: Deliberative discussion, learning motivation, nursing students.

INTRODUCTION

Nursing education has a responsibility to prepare and develop nursing curriculums in order to build students' abilities and talents for the 21st century challenges (American Association of Colleges of Nursing, 2008). Nurses are now required to provide professional, safe, skillful and multidimensional care in varied and often unfamiliar settings. Therefore, they should be ready to be competent, intuitive and intelligent clinicians where new information and clinical situations are constantly changing (Thornhill and Wafer, 1997).

It is a challenge for a nurse educator to create innovative paradigms in nursing pedagogy which enhance students' creativity, capabilities and motivation (Melrose, 2004). How can the nurse educator enhance nursing students' learning motivation? It is a very important question that requires understanding of the students' situation and need for tutorial support (Nilsson and Stomberg, 2008).

Review of the Literature

Student learning is complex and wide ranging, mainly when talking about instruction in nursing education (Ryan and Deci, 2000). For more effectiveness and success in the learning process, one must be willing and motivated to learn. This is especially true for graduate students who should have the motivation to be ready and competent in problem solving, decision making, and using professional judgment. Curricula grew long on what, when, where, and how to, but short on the why and whether elements (Cowman, 1998; Facione *et al.*, 1997). Learning occurs under the umbrella of motivation as explained by educational psychology and learning theories.

Behaviorism focuses on positive consequences that increasing the behavior's probability while negative consequences decrease it (Skinner F, 1953). The educator has a key role in organizing the learning environment to ensure, correct and desired behaviors are likely to occur, and that when it does, students will be rewarded. Incorrect responses are either punished or ignored (Svinicki, 2003). As regards a cognitive approach, learning is a structuring and restructuring of memory. Information is coming from the environment and then received by the learner's attention as a result of entered consciousness. The educator should be the director of the informational processing. When educators think out loud while solving problems in front of learners, this helps them to imitate, be aware and motivated. Awareness, understanding and recognition are most important elements that enhance self-confidence and motivation to learn (Chi *et al.*, 1994 and Pintrich, 2003).

A constructivist approach emphasizes the degree to which the learners are constructing their own view of the world. The learner creates own learning construct that is consistent with past experiences and present situations. This view focuses on personal responsibility about one's learning. Therefore, educators tend to pay more attention to activate the role and self-regulation of learners which is based on their motivational value (Facione *et al.*, 1997 and Ormrod, 1999). Moreover, a humanistic view describes that the individual's mind is strongly influenced by current determining forces in both the

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unconscious and the surrounding world, particularly by the society in which he/she lives. Learning occurs when a person's attitudes and feelings are changed. This depends on intrinsic feelings, self-initiation, self-awareness, personal development, autonomy (self-control), self-actualization, self-determination, self-confidence, self-concept and motivation. Therefore, educators should create a learning environment that motivates learners by using different teaching strategies and encouraging their autonomy and self-awareness about their own learning. Many researches highlight the importance of learning motivation as a predictor for academic success in higher education (Ormrod, 1999 and Ryan and Deci, 2000). It was observed that motivation is an essential part of all learning theories. Consequently, educators must be familiar with the process of learning motivation and suggest ways to support it.

Motivation is a goal that directs the human behavior most closely linked to feelings of personal effectiveness. To be motivated means to be eager to do something. Motivation in education can have several effects on students learning and how they behave towards their learning. (Ormrod, 1999 and Pintrich, 2003)

The Self-Determination Theory (SDT) distinguishes among types of learning motivation based on the different goals to do a certain action: 1. Intrinsic motivation; which refers to doing something because it is inherently interesting or enjoyable. 2. Extrinsic motivation; which refers to doing something because it leads to a separable outcome or surrounding benefits (Ryan and Deci, 2000). There are various forms of extrinsic motivation such as external regulation, internal regulation, identified regulation, and integrated regulation. These types vary in the degree of self-determination that is associated with the behavior. More internalized or more integrated behaviors produce a greater sense of self-determination. Thus, as one moves along the extrinsic continuum (from external to integrated), motivation begins to take on more and more characteristics associated with intrinsic motivation (Fairchild *et al.*, 2005).

Hence, what must the nurse educator know about learning? How to make it easy for learners? They have to tailor their teaching strategies in order to meet the demands of a new health care system, motivate students to develop critical thinking skills and encourage problem-solving abilities through active learning strategies (O'Shea, 2003).

Students' learning motivation and teaching strategies are unified and have one goal which is to improve the students' chances of success. Educators who understand student motivation can greatly enhance the classroom experience and student performance. Incorporating active teaching methods with students allows for better student interaction and the opportunity for students to practice newly acquired skills and knowledge. Supplementing teaching sessions with guest panels, discussion, case study or student presentations can break the monotony, minimize passive observation and increase students' motivation (Oermann, 2004).

Discussion is an excellent strategy for enhancing student learning motivation, fostering intellectual agility and encouraging democratic habits. It is diverging from the norm, which can help students learn more than what they usually are capable of by drawing their interest. It creates opportunities for students to practice and sharpen a number of skills, including the ability to articulate and defend positions, consider different points of view and recruit and evaluate evidences (Brookfield and Preskill, 1999). While a variety of discussion methods exist, relatively unknown to nursing is the deliberative discussion which is a method of teaching that was developed by the National Issues Forums Institute for the sole purpose of creating a means to engage people to dialogue with one another. (Goodin and Stein, 2009)

The process of deliberation was described according to Brookfield and Preskill in 1999, "Deliberation refers to the willingness of participants to discuss issues as fully as possible by offering arguments and counterarguments that are supported by evidence, data, and logic and by holding strongly to these unless there are good reasons not to do so." The deliberative discussion is a purposeful and serious dissertation that does not hurry to a decision but rather towards careful consideration of alternative points of views and choices.

In deliberative discussion technique, the educator is a moderator who is an individual familiar with the national forum to guide the participants through the dialogue. Then, the educator establishes ground rules to manage the dialogue of each learner and introduces the topic that is the focus of the deliberative discussion. Because the learners rarely read prior to the teaching session, the educator provides a brief summary about the issue by presentation, reading or by showing a 10 minute videotape. The educator connects the issue to the participants' lives by inviting them to take a personal stake. Participants are given the opportunity to share their personal experiences with the issue which helps to make the issue real and pertinent. At the heart of deliberation, students have a willingness to work

through the conflicts, to accept the consequences of their choices, and to establish grounds for action (Goodin and Stein 2008; Goodin and Stein, 2009 and Mello, 2010).

Nurse educators must construct a learning environment that will provide learners with the chance to question scrutinize, challenge assumptions and rate all the points of view offered to challenge and motivate their thinking. So, deliberative discussion is a teaching method which can be applied in the course of "Ideology, Ethics and Basic Law" that can inspire students' initiatives and focus on their abilities. It differs than the traditional teaching mode, thus making the class vivid, interesting, motivating, comprehensive and profound (Goodin and Stein, 2008 and YU Lin-ping, 2009).

Figure 1: Conceptual Framework. The practices of dialogue, questioning, and active engagement (in Goodin H., Stein D. The Use of Deliberative Discussion to Enhance the Critical Thinking Abilities of Nursing Students. The Berkeley Electronic Press, 2009. 5(1) 5).

Figure 1, illustrates that dialogue, questioning, and active engagement are the essential elements of a successful deliberative discussion. When nursing students are interested and motivated to learn nursing sciences, they will be active learners and their learning retention will be increased. Accordingly, this will be reflected in their nursing profession. Nursing is a humanistic profession that requires a student who has loyalty, empowerment, self-confidence, self-efficacy and motivation towards his/her career (Goodin and Stein, 2008 and YU Lin-ping, 2009). Perhaps more important, graduate nursing students with professional degrees are better prepared to lead deliberative processes in their professional realm of responsibility.

MATERIAL AND METHODS

The aim of this study is to determine the effect of deliberative discussion as a teaching strategy on nursing students' learning motivation.

Hypotheses: Nursing students who have been instructed through deliberative discussion teaching strategy will have higher learning motivation scores than those who have been instructed through traditional teaching method.

An experimental design was utilized to accomplish this study at the Faculty of Nursing, University of Alexandria. The study sample included all master nursing students (67) enrolled in the 1st semester in the Health Education elective course in the academic year of 2011-2012. Only sixty master students agree to participate in the study. They were divided randomly into two groups:

***Study group*:** thirty master nursing students who were instructed about ethical principles and the code of ethics in health education using deliberative discussion teaching strategy.

Control group: thirty master nursing students who were instructed about ethical principles and the code of ethics in health education using a traditional teaching strategy.

Study Tool

One tool was used in the current study; Motivated Strategies for Learning Questionnaire (MSLQ), which was developed by Pintrich et al., in 1991 to assess college students' learning motivational orientations during teaching-learning activities. This tool reviewed by Artino, A.R. in 2005 and checked for applicability by Somtsewu N., in 2008. It included eighty one items. Each item was followed by a seven point Likert Scale ranging from not at all true (1) to very true (7). A reversed scoring was allotted to negative statements. There are essentially two sections of MSLQ:

Section 1: Examines learning motivation which consists of thirty one items that assess students' goals, value beliefs towards a course, belief about ability to succeed in a course and anxiety about tests. This section included three general motivation constructs that can be measured and monitored:

- *Expectancy* (refers to students' beliefs that they can accomplish a task). The two MSLQ scales that make up the expectancy component are the Control of Learning Beliefs Scale and the Self-Efficacy for Learning and Performance Scale.
- *Value* (focuses on the reasons why students engage in an academic task. Attributes that make up the value component cover Intrinsic Goal Orientation, Extrinsic Goal Orientation and Task Value).

- *Affect* (used in terms of responses to the Test Anxiety Scale, which taps into students' concern over taking examinations).

Section 2: Examines strategies of learning which consists of fifty items about cognitive and meta-cognitive (the behaviors and thoughts in which students are engaged while studying, namely, Rehearsal, Elaboration, Organization, Critical Thinking, and Meta-cognitive Self-Regulation) and resource management learning strategies (how the students manage and regulate their time and study environments, monitor effects, learn from peers and seek help and support from peers and educators' socio demographic characteristics were included as well).

Tool scoring system

Students rate themselves on a seven point Likert Scale from "not at all true of me" to "very true of me." Scales are constructed by taking the mean of the items that make up that scale. i.e. intrinsic goal orientation having four items. An individual's score for intrinsic goal orientation would be computed by summing the four items and taking the average. Items marked as "reversed" are reverse coded items. These negatively worded items and the ratings have to be reversed before an individual's score can be computed. If an item has to be reversed, a person who has circled 1 for that item now receives a score of 7 and so on. Accordingly, a 1 becomes a 7, a 2 becomes a 6, a 3 becomes a 5, a 4 remains a 4, a 5 becomes a 3, a 6 becomes a 2, and a 7 becomes a 1. The simplest way to reflect a reverse coded item is to subtract the original score from 8. i.e., if the original score was 2 to the negatively worded item, one would compute 8-2 = 6; 6 being the score for the positively worded version of that question.

Method

An official approval was obtained from the ethical committee, responsible authorities and participants after explaining the aim of the study. The study tool was modified after a thorough review of related literature (Pintrich, 1991; Pintrich *et al.,* 2003 and Somtsewu, 2008). It was tested for content validity by five experts in nursing education and nursing administration fields and consequently, necessary modifications were done. Then it was statistically tested for reliability by the Cronbach Alpha Coefficient Statistical Test that revealed reliability in between (0.64 to 0.76). A pilot study was done using a study tool on seven master nursing students in another elective course that was apart from study subjects. Applicability, clarity and necessary modifications were done accordingly.

Pre-test

Both study groups received the study tool and completed it in the presence of the researcher to help them understand its statements after two sessions from the beginning of the Health Education course which was taught by traditional teaching methods (students' presentations).

The researcher prepared three deliberative discussion sessions about health education ethical principles and its code of ethics based on a thorough review of related literature to be taught to study group, while, control group was taught by traditional method of teaching. Both groups were asked to read carefully and prepare this unit a week before.

Conduction: (with study group only)

The researcher as a moderator conducted each deliberative discussion session as follows:

- Arranged the class and seats to permit face-to-face conversation between master nursing students.
- Communicated rules of the session that organize students – teacher's role - students' interactions. The purpose and the topic of the deliberation sessions were explained.
- Offered a brief summary about the topic by storytelling and reading. The researcher tied the issue with the students' life and work and then invited them to discuss their personal experiences related to the topic.
- Posed four questions at the beginning of each session to enhance students' thinking skills then encouraged them to direct discussion and write answers of the given questions with reflection of their life and work experiences. Four questions are:
  - What is the importance of the presented topic in the health education field?
  - What are the benefits and risks for that topic?
  - Where are the conflicts that the students have to work through to reach a conclusion?
  - Can the students detect any shared sense of direction or common ground for utilization of the topic in health education with patients?
- Students shared discussion, comments and work experiences with a time limit that is settled by the moderator (i.e. ethical principles subtitles of health education: confidentiality, autonomy, mal-efficiency, veracity, fidelity……each one takes 10 min.).
- For each session subtitle, the moderator ensured that at least one point of view is respectfully considered as a kind of consolidation and motive for other students.

- The moderator remained neutral while guiding students through the process and encouraged them to weigh all the alternatives for each subtitle.
- Students were encouraged to connect discussed points with values, ideas, personal stories or examples, and to explore the consequences of actions for different patient situations.
- The researcher managed the dialogue between students and provided feedback after each subtitle. Students were asked to write down their comments and ideas related to each session subtitle. At the end of each session:
  - The moderator asked for feedback and then provided a brief summary and conclusion.
  - Students were asked to provide recommendations.
  - The moderator asked the students some questions in this step to elicit their reflection about the deliberation topic:
    - How has your thinking about the issue changed?
    - How can we use what has been learned in a nursing career?
    - What do we want to do next?
- Students' comments were gathered and analyzed to explore their reflection and check purposes and accomplishments.
- The deliberative discussion sessions were conducted in the same classroom that scheduled for master nursing students. The researcher arranged with the control group to take their sessions in the same class immediately after the study group.
- The sessions of the deliberative discussion were held in the morning from 9:00 AM to approximately 11.00 AM. The control group took their sessions in the morning from 11:00 AM to approximately 1.00 PM., on Mondays for three weeks.

Post-test

Immediately after the deliberative sessions, both study groups received the study tool and completed it to reassess their learning motivation regarding both types of instruction in the presence of the researcher in order to help them understand its statements.

The researcher was completely responsible for teaching health education ethical principles and the code of ethics unit to both groups without any interference from other faculty staff to avoid any contamination.

The scores of the study tool was compared for each group before and after the instructions, and then the difference among the scores of each group was estimated in order to determine the effect of deliberative discussion teaching strategy on master nursing students' learning motivation.

RESULTS

Data collected from the pretest-posttest study tool was computerized and analyzed using the Statistical Packages for the Social Sciences (SPSS) version 15.0 for Windows and Microsoft Excel Spread sheet package (Office 2007). Tests for significance were used; mean and standard deviation as well as Chi square, test T test and P value for comparison between the effects of both study and control groups. In addition, the Effect size test was used indicate to which extent educational intervention is effective.

Table I shows the participants' characteristics for the study and the control groups, who were mostly similar in demographic characteristics. All participants held previous bachelor degrees. There was not a statistically significant difference between both groups; related to sex, age and job, P level of significance ≤ 0.05.

Table I: Description of the study sample

Groups	Characteristics	Sex				Age						Current job							
		Female		Male		20 ≤ 25 years		26 ≤ 30 years		30 ≤ 35 years		Demonstrator		Clinical instructor		Registered nurse		Preceptor	
		No	%	No	%	No	%	No	%	No	%	No	%	No	%	No	%	No	%
Study	30	27	90	3	10	21	70	3	10	6	20	8	26.7	10	33.3	6	20	6	20
Control	30	29	96.7	1	3,3	18	60	5	16.7	7	23.3	9	30	12	40	3	10	6	20
X^2		1.071						1.024						1.241					

X^2 = ***Chi square test*** (used to detect the difference among two or more percentages) P: level of significant < 0.05

Table II Before the educational interventions there is not a statistically significant difference among both study groups while it is clear that there was a statistically significant difference after implementing the educational interventions among the deliberative group as observed, which concerns the three value components that represent the reasons why students engage in an academic task. The study group had high means after the deliberation discussions, more than the control group. There is stronger effect size for the

study group than the control group for all items of value components. (Effect size = 1.6, 1.5, 1.4 for study group VS Effect size = 0.7, 0.6, 0.05 for the control group).

Table II: Comparing between study and control groups in relation to value components.

Value components	Study group (N=30)				T test	Effect size	Control group (N=30)				T test	Effect size
	BEFORE		AFTER				BEFORE		AFTER			
	$\bar{X}$	SD	$\bar{X}$	SD			$\bar{X}$	SD	$\bar{X}$	SD		
Intrinsic goal orientation	14.87	2.70	18.10	3.73	8.73	**1.594*** **	13.57	3.21	15.07	2.95	3.67	**0.670** **
Extrinsic goal orientation	13.57	3.79	16.73	2.79	8.00	**1.461*** **	12.60	2.76	13.70	2.39	3.11	**0.568** **
Task value	18.57	3.84	22.37	3.57	7.87	**1.437*** **	17.00	3.33	17.20	3.81	0.25	**0.045**

P: level of significant relation ≤ 0.01, Degree of freedom= 58, Effect size test = indicates to which extent the intervention is effective.
* = 0.2 ≤ 0.5 weak effect ** = 0.5 ≤ 0 .8 moderate effect *** = 0.8 ≤ 1 strong effect

By using T and effect size tests, Table III illustrates that there was a statistically significant difference between the control and the study group after the educational interventions, related to the expectancy components of MSLQ in favor of the study group.

Therefore, the master nursing students who participated in the deliberative discussions were better in controlling learning beliefs (Effect size = 1.5 VS. 0.22) and self-efficacy for learning and performance (Effect size = 1.7 VS. 0.5) than control group and P ≤ 0.01.

Table III: Comparing between study and control groups in relation to expectancy components.

Expectancy components	Study group (N=30)				T test	Effect size	Control group (N=30)				T test	Effect size
	BEFORE		AFTER				BEFORE		AFTER			
	$\bar{X}$	SD	$\bar{X}$	SD			$\bar{X}$	SD	$\bar{X}$	SD		
Control of learning beliefs	14.07	2.53	18.83	4.15	8.10	1.479***	14.60	3.42	15.53	3.32	1.22	0.222*
Self-efficacy for learning and performance	31.93	7.44	40.70	8.22	9.19	1.678***	31.23	7.34	32.23	7.61	2.79	0.509**

P: level of significant relation ≤ 0.01, Degree of freedom= 58, Effect size test = indicates to which extent the intervention is effective.
* = 0.2 ≤ 0.5 weak effect ** = 0.5 ≤ 0 .8 moderate effect *** = 0.8 ≤ 1 strong effect

As observed in Table IV, in relation to test anxiety that included worry and preoccupation during performance which disrupts learning and an emotional component toward the academic task, the deliberative group had higher anxiety test score means than the control group, and P ≤ 0.01 had a strong effect size in favor of the deliberative group (Effect size = 1.7) VS. 0.7).

The findings in Table V show that the deliberative group had better mean scores after the educational intervention in all cognitive and meta-cognitive learning strategies apparently in elaboration, critical thinking, peer learning and help seeking strategies than the control group. The deliberation approach had a stronger effect size than the traditional method that had none or a weak effect size. However, regarding time and study environment learning strategies, both groups had approximately no effect size = 0.22 VS. 0.186.

Table IV: Comparing between study and control groups in relation to affective expectancy.

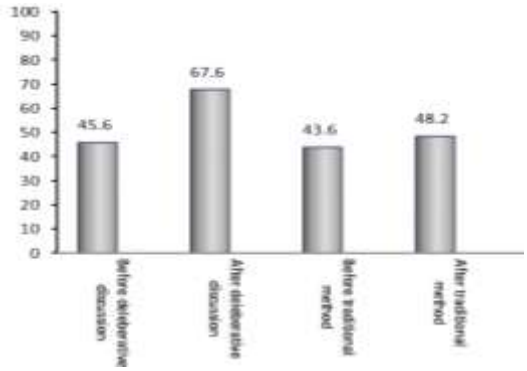
Affective components	Study group (N=30)				T test	Effect size	Control group (N=30)				T test	Effect size
	BEFORE		AFTER				BEFORE		AFTER			
	$\bar{X}$	SD	$\bar{X}$	SD			$\bar{X}$	SD	$\bar{X}$	SD		
Test anxiety	19.80	3.58	24.30	3.73	9.350	**1.707*** **	18.60	3.22	20.47	4.07	3.958	**0.723** **

P: level of significant relation ≤ 0.01, Degree of freedom= 58, Effect size test = indicate to which extent the intervention is effective.
* = 0.2 ≤ 0.5 weak effect ** = 0.5 ≤ 0 .8 moderate effect *** = 0.8 ≤ 1 Strong effect

Table V: Comparing between study and control groups in relation to cognitive and meta-cognitive learning strategies.

Cognitive and meta-cognitive learning strategies	Study group (N=16) / Study group (N=30)				T test	Effect size	Control group (N=15) / Control group (N=30)				T test	Effect size
	BEFORE		AFTER				BEFORE		AFTER			
	$\bar{X}$	SD	$\bar{X}$	SD			$\bar{X}$	SD	$\bar{X}$	SD		
Rehearsal	12.77	1.88	16.47	2.16	9.48	1.732***	13.07	2.132	14.033	2.059	2.81	0.513**
Elaboration	20.13	4.29	25.83	5.05	7.91	1.443***	18.43	3.15	21.10	4.59	3.64	0.665**
Organization	14.73	1.98	17.67	3.04	6.76	1.234***	15.27	2.08	15.57	3.51	0.38	0.070
Critical Thinking	17.23	2.01	20.97	3.10	7.46	1.362***	17.90	3.80	18.37	4.02	0.41	0.075
Meta-cognitive self regulation	43.13	7.98	52.13	8.92	6.94	1.267***	43.83	7.74	43.20	5.88	- 0.35	-0.064
Time and study environment	14.60	3.42	15.53	3.32	1.22	0.222*	28.23	5.92	29.93	5.77	1.02	0.186
Peer learning	8.87	2.68	13.53	2.87	9.82	1.792***	8.57	1.81	10.57	3.43	2.57	0.469*
Help seeking	12.53	3.28	15.80	4.17	7.27	1.327***	12.13	2.86	11.83	2.71	- 0.41	-0.075

Significant relation at P level < 0. 05, **Effect size test** (among $\bar{X}$ after intervention) = indicates to which extent the intervention is effective.
* = 0.2 ≤ 0.5 weak effect ** = 0.5 ≤ 0 .8 moderate effect *** = 0.8 ≤ 1 strong effect



Mean percent of master nursing student's MSLQ scores before and after the educational interventions.

Hence, the master nursing students who were in the deliberative discussion group were better in their MSLQ scores posttest. Also there was a significant statistical difference between both groups after the interventions in the interest of the deliberative group. The results of the pretest of both groups were mostly similar while posttest findings differed in favor of the study group. Thus, these findings supported the study hypothesis because the deliberative discussion students rated at a higher level of MSLQ than students who were taught traditionally as observed in Figure II.

DISCUSSION

The concept of motivation and the strategies of learning that a student uses have an effect on the individual's ability to progress through nursing academic achievement. The drive to prepare, the ability to utilize effective study habits, and existing anxieties all influence the student's performance (Carpenter, 2010, Somtsewu, 2008). Several studies have subsequently highlighted the significant role of motivating strategies of learning as important aspects of students' learning performance in the classroom, essentially for college students (Pintrich, 2003).

As revealed in the current study, there is a statistically significant difference after implementing the educational interventions among both groups related to all items above, in favor of the deliberative group. There are multiple reasons that determine why learning motivation changes as a result of the teaching approaches such as challenge, curiosity and mastery. Deliberative discussion was conducted over three weeks with the study group with specific preparations, conduction and evaluation, which represented a good source of recognition, participation and interaction. This was supported by Pintrich *et al.,* in 2003 who stated that the motivational theories are concerned with the energy and direction of behavior. The term motivation is derived from the Latin verb movie, which means to move students toward participation, interaction and involvement, especially with adult graduate students.

The deliberative group responses after the educational interventions were better than the control group in relation to intrinsic, extrinsic goal orientation and task value. This proved that the deliberation approach encouraged the internal goal of motivation to learn besides increasing the awareness of the students about the value and usefulness of the achieved task. Importance or attainment task value refers to how to appreciate the importance of the task to do well, as well as how central the task is perceived to be to the individual's personal identity. Therefore, the innovative strategies which include the provision of tasks and activities that are interesting, stimulating, novel, and personally meaningful in some manner, help to increase intrinsic, extrinsic goal orientation and task value (Ford, 2003 Somtsewu, 2008).

According to study results, the study group gained high scores regarding extrinsic goal orientation which can be numerous such as; grades, competition with peers, social goals, academic achievement and evaluation of others. Therefore, the variety of extrinsic goals tend to limit and decrease the effect of teaching methods more than other components of learning motivation. But deliberation discussion increased the extrinsic goal orientation among the study group. Congruent with this finding, Somtsewu, in 2008 clarified that there are multiple goals that students can pursue in a classroom, and there is a comprehensive taxonomy of twenty four goals that individuals might pursue in any context. The roles of these different goals play an important role in learning, adjustment, and academic achievement. Moreover, during teaching sessions with both groups, the master nursing students frequently said that they have several more roles, duties and responsibilities than any other students. Adult students frequently study and maintain a job which is considered a great burden and may lead to frustration.

For task value, the deliberative discussion tends to enhance master students' perception of the course material in terms of interest, importance and the utility of a course. This goes in line with those who emphasized that high task value scores have been associated with increased involvement in learning. When the student is aware of task benefits, this enhances active participation. (Kivinen, K. 2003)

Another result in the current study is that there is a statistically significant difference after implementing the educational interventions among

both groups related to the expectancy components of MSLQ in favor of the deliberative group, including control of learning beliefs and self-efficacy for learning and performance. This explains why active participation and student interaction have apparent roles in motivating their learning. If students feel that their efforts will result in accomplishing the task, they will increase their control of learning outcomes and self-efficacy (Pintrich, P 2003).

The deliberative discussion approach has a strong effect of relieving anxiety among the deliberative group more than the control group. Without any doubt, motivated and interactive students exhibit less anxiety toward an achievable task. This can be clarified that the deliberation discussion enhances and motivates students' dynamics with minimal interference from the teacher. Goodin H., Stein D. IN 2009 concluded that students with deliberation had limited worry about the ability in learning and beliefs of consequences of answering questions that were provided in deliberation.

Deliberative discussion is a cooperative experience, not a competitive approach. Many students of the deliberative group illustrated that they were invited and interested without anxiety because they discussed life experiences at their work place. They were interested and not worried. There has been little research on the role of affect and emotions in the classroom but nowadays emotions and feelings are great elements of learning and have a direct effect on achieving the cognitive aspect of academic achievement. Affect and inner feelings can enhance the learners to accomplish their goals and lead them to gain different types of information as well as behaviors (Pintrich, 2003 and Nilsson and Stomberg, 2008 YU Lin-ping, 2009).

To encourage students' learning motivation and develop independent learning skills and strategies, teachers need to focus and identify students' beliefs, points of views, opinions and values and how these motivational beliefs affect learning (Boekaerts, 2002).

Moreover, deliberation enhances adult students' self-efficacy which is the individuals' confidence in their ability to control their thoughts, feelings and actions and therefore their ability to influence a learning outcome (Bandura, 1989). Master nursing students acquired information to assess self-efficacy beliefs and the extent to which they have confidence to achieve their task.

As regards cognitive and meta-cognitive learning strategies, the deliberative group proved that they were having better learning strategies that enhanced learning motivation during the deliberative sessions than the control group. The moderator during deliberation encouraged graduate students to build their own construct through using their own views in elaboration, critical thinking, peer learning and help seeking learning strategies. This was emphasized by Wernke *et al.,* in 2001 who stated that there were some common assumptions. Strategic action, meta-cognition, and intrinsic motivation are important aspects in a learning process which act through self-regulated learning. The activity and dynamics of a learner are essential aspects to the degree that the learner will be meta-cognitively, motivationally, and behaviorally active participants in their own learning process.

Deliberation discussion emphasizes enhancing cognitive activity, democracy sharing and self-regulation. To be a self-regulated learner, one must use specific learning strategies to achieve the academic goals on the basis of self-perception. Such learning methods include goal-setting, planning, organizing and transforming, rehearsing, memorizing, record-keeping and self-monitoring. The use of self-regulating learning strategies in deliberation allows students to use effective information processing (Leung, and Chan, 1998 and Goodin, and Stein, 2008).

Both types of educational interventions had no effect size among both groups regarding time and study environment strategies. This aspect of meta-cognitive strategies may be difficult for current study due to limited time of deliberation sessions as the students took only a unit and not a complete course. In line with this point of view, Pintrich in 1991, discussed that time management involved scheduling a time to study, organizing weeks or months in advance for assignments or exams, and the appropriate use of study time for real and accurate goals, which require a lengthy time for a complete course.

Furthermore, study environment management refers to the ability of students to arrange the physical place of learning which is difficult because the arrangement for deliberation is different than other study courses. So, the deliberation failed to enhance this meta-cognitive approach. This is incongruent with Somtsewu, in 2008 who stressed that the arrangement and awareness of physical suitability of the learning place and how to shape it to be a helping aspect in the learning and teaching process, is a strong meta-cognitive approach that is a sign of actively motivating the student.

Deliberative processes are enhancing students' strategy to the way that makes decisions. It involves the students' choice to engage actively in

democratic life. It prepares students to become decision-making citizens and motivated learners, ready to participate and interact and have the ability, feelings and thoughts toward cooperation and interaction.

CONCLUSION

The use of deliberative discussions can produce an excellent effect on the learning motivation of master nursing students. Further, the deliberative dialogue provides a noted improvement in the interests of graduate nursing students. In addition, the deliberative discussion method is a useful teaching strategy to help nursing students practice and build their cognitive and meta-cognitive learning strategies over time. A period of sharing dialogue incorporated into the students' learning experience with deliberative discussion may help students become more familiar with their role in the learning process.

The main purpose of the current study was to investigate the effect of the deliberative discussion on enhancing nursing students' motivation. The result provided empirical evidence which supported the hypothesis for the association between learning motivation and deliberation.

Recommendations

Professional nursing educators must be aware of all teaching strategies that could improve the awareness, feelings and practices of learners through deliberative discussions. Collaboration between the academic team and other clinical disciplines are more effective in providing an opportunity to demonstrate the contribution of innovative teaching approaches in nursing. Moreover, the present study provides a view to further studies as follows:

- Repeating the current study using other variables with deliberation such as critical thinking, problem solving and leadership skills.
- Further research is also needed for a larger number of samples, as well as a longer period of study time to confirm the effect of deliberation on students' learning process.
- Investigating the relation between learning motivation awareness and compliance.
- A research study to develop an educational program for collaboration, guidance and support for teachers to use active and interactive teaching strategies.
- A study to develop innovative teaching strategies in nursing programs to be used among nursing educators.

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