The Effect of Implementing Exemplar Education Program on Nursing Students' Professional Commitment and Learning Burnout

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ABSTRACT

Background: Exemplar education is becoming an essential aspect of teaching to improve students’ self-monitoring and regulation, as well as manage learning stress and burnout. It provides students with samples of actual previous students’ work from various standards. It has a great impact on learning and achievements leading to an improvement in students’ professional commitment. Aim: Examine the effect of using an exemplar education program on nursing students' professional commitment and learning burnout at the Faculty of Nursing, Mansoura University. Design: Quasi-experimental design. Sample: 315 third-year undergraduate nursing students during the academic year 2022-2023. Tool: The study included three tools; Self-administer Knowledge Questionnaire, Nurses' Professional Commitment Inventory, and Primary Students Learning Burnout Scale (PSLBS). Results: 55.5% of the studied students had a high level of professional commitment before implementing a program and 67% of them had a high level after implementation. Also, 35.3% of the studied students had a low level of learning burnout before implementing the program, and 96.2% of them had a low level after implementation. The studied students’ knowledge about exemplar education was improved post and after three months with percentages of 100%, and 94.3% respectively. Conclusion: Compared to their pre-intervention level, the knowledge of the studied students improved after the program's implementation. There was a high statistical significance of implementing an exemplar education program on professional commitment. There was a highly statistically significant effect of implementing an exemplar education program on the learning burnout of the studied students. Recommendations: Incorporate exemplar education into the nursing curriculum to decrease the level of students learning burnout and provide student feedback technique on a regular basis.

Keywords: Exemplar Education, Learning Burnout, Nursing Students, Professional Commitment.

Introduction

Today, a major global challenge is the shortage of nurses due to a shortage of qualified educational professionals, a high rate of turnover, and an inequitable distribution of the workforce. The goal of nursing education is to
raise students’ academic achievement and produce high-quality learning outcomes. Examples of best practices in the educational environment are presented in exemplar education, which is intended to help students better understand certain skills and knowledge in any given circumstance and express predetermined standards and criteria (Almasi, Bavani & Pour, 2018).

The concept of the exemplar is defined as “Key samples were chosen to be typical of specified standards of quality or performance”. Exemplar simply refers to an approach, ideal, or pattern that can be followed or imitated, as well as to something typical or symbolic of an example (Ruivo, 2020). Examples are carefully selected student work samples that are used to define evaluation requirements and show quality dimensions through articulating criteria and standards for assessment activities (Carless & Chan, 2017.) It is also defined as examples of the most effective and worst practices used to improve students’ comprehension of particular abilities, knowledge, or concepts (Newlyn, 2013).

No other technique of learning can express quality or lack of quality like exemplar education can. It acts as a performance standard for learners, allowing them to assess and improve their own performance. It also helps students do better on work by acting as a self-evaluation tool that enables them to establish their own well-informed opinions as well as their motivation, self-efficacy, and commitment to their career (Carter, et al., 2018).

Nursing education is a crucial stage in developing a professional commitment for a nursing student. Baccalaureate education is the only way to become a professional nurse (Safari & Yoosefpour, 2018). Professional commitment is the only gate that focuses on nurses’ motivation, increases autonomy, engage them in decision-making processes and equally rewards them in ways that completely satisfy nurses in various jobs (Kandiel & Gharib, 2017).

Professional commitment is more than just a dedication to a certain career; it also conveys a person's perspective about their job, their drive to work hard, and their willingness to respect the standards of their field. It is reinforced by adherence to ethical practice standards, competence, job satisfaction, physical appearance, agility, and excellent behavior outside of work (Siraneh et al., 2018).

Professional commitment affects nursing staff consistency and satisfaction. Nursing students develop their commitment over time. Higher professional commitment among nursing students will translate into greater loyalty once they graduate and join the job (Cheng, Chen & Zhang, 2021).

Two key indicators of students’ learning psychology are professional commitment and learning burnout. It is unfavorable attitudes and actions that are restless about learning because of pressure from education or a lack of enthusiasm. When students experience learning burnout, there
will be certain psychological and physiological symptoms of tiredness and fatigue (Lui, 2021).

Learning burnout is a psychological state characterized by persistently negative feelings and decreased motivation (Li et al., 2022). It consists of three dimensions: emotional exhaustion, cynicism, and learning efficacy. Emotional exhaustion refers to the exhaustion caused by learning for students. Therefore, cynicism has two meanings: one is the degree to which students dislike learning. Another interpretation of cynicism is the type of social stress that learners would experience as a result of their poor academic performance (Qin, et al., 2022). Finally, learning self-efficacy is the concept used to express how students feel and believe they can perform educationally (Hayat et al., 2020).

Learning burnout has a negative effect on nursing students' abilities both emotionally and professionally. Anxiety and tiredness are only two of the many mental health issues that can result from learning burnout. It has a close relationship to negative symptoms like insomnia, depression, and taking psychotropic and antidepressant drugs (Vasconcelos et al., 2020). By using modern educational techniques, nursing students may be more committed to their careers and experience less learning exhaustion. Additionally, offering some advice and inspiration to higher education nursing students will serve as a significant guide for reducing their physical and mental fatigue (Chen & Yang, 2018).

Significance of the study:

With the rapid development of the health care discipline, specialization in nursing has grown in demand and effectiveness. The only way nursing science can work towards survival and development is through appropriate change and the production of highly qualified nursing graduates. These nursing students face greater learning pressure due to a heavy academic workload and competitive pressure leading to learning burnout and a lack of professional commitment. Exemplary education helps nursing students grow their understanding of specific content, information, or skills in any given situation and sets established standards and criteria. It is a very helpful technique to assist students in developing an accurate understanding of exactly what is required of them to achieve the target level of accomplishment in a measurable, realistic manner, resulting in a decrease the level of learning burnout. As well, a significant indicator of a student's preferences for and knowledge about their profession is professional commitment (Yan, et al., 2023). So, this study aims to examine the effect of implementing an exemplar education program on nursing students' professional commitment and learning burnout.

Aim of the study:

The study aimed to examine the effect of implementing an exemplar education program on nursing students' professional commitment and learning burnout.
Hypothesis of the research:

- After the program implementation, the nursing students involved in the program will have better knowledge about an exemplar educational program than before the intervention.
- After the program implementation, the nursing students involved in an exemplar educational program will have a higher level of professional commitment and a lower level of learning burnout than before the intervention.

Methods:

Design of the study

The aim of the research was accomplished using a quasi-experimental design. It is used to evaluate the intervention without using randomization and is utilized to determine how an intervention will affect the target group.

Setting of the study:

The research study was carried out in the Faculty of Nursing at Mansoura University. It includes eight academic nursing departments, which were initially established in 1994. These departments include nursing administration, medical-surgical nursing, Critical Care and Emergency Nursing, Community Health Nursing, Woman’s Health and midwifery Nursing, Psychiatric and Mental Health Nursing, Gerontological Nursing and Paediatric Nursing.

Participants of the study:

The study sample was 315 nursing students from the third academic level out of 1716 using Rao soft sample size calculator http://www.raosoft.com/samplesize.html, a 5% margin of error, 95% Confidence Level, the formula used is:

\[
\text{Sample size } n = \frac{[\text{DEFF} \times Np(1-p)]}{d^2/Z^2} = \frac{[\text{DEFF} \times Np(1-p) + p(1-p)]}{d^2/Z^2}
\]

Population size (for finite population correction factor or fpc) (N): 1716, Hypothesized % frequency of outcome factor in the population (p); 50% +/-5, Confidence limits as % of 100% (absolute +/-%) (d): design effect (for cluster surveys- DEFF)

Inclusion criteria:

Students at the third level of undergraduate nursing education. Third-year students study different and diverse courses with both theoretical and practical sides. On the other hand, there are elective and medical courses that the student must pass according to his study plan, which makes the students in this year burdened making them vulnerable to learning burnout and decreasing their professional commitment to the nursing profession. Using exemplar education, where live examples were presented to students to clarify matters from practical reality, and how these examples became more successful in their work after passing all these matters.

- No previous participation in training programs about professional commitment and learning burnout.
Exclusion criteria

- Student absence of one module from the exemplar education program will be excluded from the study.

Research tools for data collection:

Three tools were used to collect the study data:

First tool: Self-administer Knowledge Questionnaire: This questionnaire was developed by the researchers based on reviews of literature guided by Hawe, Lightfoot & Dixon (2017), Hendry, White & Herbert (2016) & Sadler (2010). It is used to evaluate the level of knowledge of nursing students about exemplar education. It includes two parts:

Part 1: It includes personal characteristics of the participants as age, gender, and item “Was nursing your first choice in selecting own specialty for university education?

Part 2: Exemplar education knowledge assessment questionnaire: it consists of 17 close-ended questions (12 multiple choice questions and 5 true and false) that are grouped under the terms of concept, importance, characteristics, and application of exemplar education

Scoring system

Nursing students' responses were measured by giving a score of (1) for the right response and (0) for the wrong response. The total score was 17 and converted into percentages. If the percentage score was 60% or higher, the overall level of knowledge was considered adequate; if it was less than 60%, it was considered inadequate according to the statistical cutoff point.

Second tool: Nurses' Professional Commitment Inventory. It was adopted from Siraneh et al., (2018). It contains 10 items to assess the level of professional commitment of nursing students.

Scoring system

Nursing students' responses were evaluated using a five-point Likert scale, from 1 (strongly disagree) to 5 (strongly agree). The total level of professional commitment was divided into three categories: low (<60%), moderate (60-75%), and high (>75%) according to the statistical cutoff point.

Third Tool: Primary Students Learning Burnout Scale (PSLBS), adopted from Chen (2009). It contains 23 items to assess learning burnout. The PSLBS scale consisted of the following four subscales: negative emotional state (7 items), negative external evaluation (5 items), poor life quality (7 items), and poor teacher-student relationship (4 items)

Scoring system

Nursing students' responses were evaluated using a 3-point scale: 1 (no), 2 (unsure), and 3 (yes). The students had to choose the level of learning burnout. Total scores of students learning burnout were classified as the following: low (<60%), moderate (60-75%), and high (>75%) according to the statistical cutoff point.
Validity and reliability:

The panel of five experts in nursing administration from the Faculty of Nursing tested the study’s tools for their face and content validity, and consequently, the required modifications were made. It also tested the entire instrument for relevance, comprehension, and appropriateness. The study tools were tested to assess reliability through Cronbach’s alpha test, which was 0.87 for the self-administered knowledge questionnaire, 0.93 for the professional commitment questionnaire, and 0.89 for the learning burnout questionnaire.

Pilot study:

A pilot study on 10% of the study subjects (N=31) was conducted to determine the clarity, feasibility, and applicability of the study tools prior to starting the actual data collection. It also required estimating the time for data gathering from questionnaires. The questionnaire needs to be filled out in approximately thirty minutes. Because the study’s tools had no modifications; the results of the pilot study were included in the study.

Field of work:

The study was conducted in a particular sequence from the beginning of February to the end of June 2023:

Pre-implementation phase: Preparation of the program’s sessions and the methods for data collection for the exemplar education program based on reviews of relevant national and international literature using publications, textbooks, the internet, and theoretical knowledge of the related study’s topic. It lasted from the first of February until the 15th of February. The program’s contents consisted of:

Introduction, concepts, reasons for using exemplar in education, benefits of using exemplar in education, modules of exemplar education, the importance of professional commitment, components of professional commitment, Dimensions of professional commitment, factors contributing to professional commitment, symptoms of learning burnout, and how to Prevent learning Burnout.

Implementation phase (intervention): This phase lasted from February 19-28, 2023 included the following steps:

First: The nursing students completed the pre-program questionnaires before starting the program, including Self-administered Knowledge Questionnaire; Nurses’ Professional Commitment Inventory, and Primary Students Learning Burnout Scale (PSLBS). Each of the previous tools took 10–15 minutes to complete. It was used for the assessment of nursing students' knowledge of exemplar education, level of professional commitment, and level of learning burnout. These tools were completed as part of the pre-program pretests so that the researchers could compare them to the post-program and follow-up program.

Second: Following the completion of the questionnaires, the program sessions began to be implemented. It was conducted in March 2023. The 16-hour exemplar education program was divided into four modules: expert lectures, visiting
hospital, an alumni salon, and a reflection oral report.

**Module 1**, expert talks (6 class hours). The researchers selected two invited speakers with significant clinical experience, teaching expertise, and nursing achievements to participate in module 1. The first is a Ph.D. advisor and nursing professor at Mansoura University's nursing faculty. The second is the director of Nursing at the Main Mansoura University Hospital.

**Module 2**, visiting the hospitals (3 class hours), students were taken on visits to four exemplary hospitals with good reputations in various nursing specialties. The first hospital specializes in Kidney and Urology nursing, the second in Oncology nursing, the third in Children's Care Nursing, and the fourth is Main Mansoura University Hospital. The students had the option of visiting one of the four hospitals.

**Module 3**, Alumni Salon (3 class hours), was an example for discussion and contact between graduates and students based on three criteria: alumni having more than five years of clinical experience, having an enthusiasm for nursing, and having the highest level of clinical practice in the nursing profession. Clinical: five graduates received invitations to the salon. The participating students were divided evenly among the five groups. One graduate from each group participated in a salon discussion about nursing work.

**Module 4**, reflection report (4 class hours), students were required to give feedback based on their reflections to follow their learning, and personal and professional development. These feedbacks were examined by the researchers. The researchers also conducted face-to-face interviews with participating students.

**Evaluation phase**: In the program’s evaluation phase (Post- & Follow-up program evaluation), the effectiveness of the educational program was assessed by utilizing the same questionnaires that had been used before the program implementation. It was conducted in June 2023.

**Ethical considerations**

Official permission was obtained from the Scientific Research Ethical Committee, Faculty of Nursing at Mansoura University to collect data for this study with the ethical code number (0371). The study's subjects (nursing students) agreed to participate after being informed of the study's purpose and receiving their consent. The study's participants were instructed that their participation was entirely voluntary and that there would be no consequences if they withdrew from it. Data confidentiality was established, and it was guaranteed that the data would only be used for scientific research purpose.

**Statistical analysis**

Using SPSS software version 22, the gathered data were arranged, tabulated, and statistically examined. The normality of data was first tested with one sample Kolmogorov-Smirnov test. Descriptive appropriate statistical tests were utilized as frequent, percentage, mean, and standard deviation. A paired t-test was used to test
the difference between the mean of two continuous variables in a single group. Pearson's correlation coefficient was used to determine the correlation between variables. Results were considered statistically significant when the probability of error was less than 5% (p ≤ 0.05).

**Results**

**Table (1): Personal characteristics of the studied students.** It shows that more than half of the studied sample (52.5 %) was 21 years old, while 19.5% of them were 22 years old. 78% of them were female and 55.9% of them reported that nursing was the first choice in selecting their specialty for university education.

**Table (2): Levels of Exemplar Education Knowledge among the Studied Students Throughout Different Phases of Training Program.** It shows that 60% of the studied students had satisfactory knowledge of exemplar education before implementing a program, which turned into 100%, and 94.3% of them had satisfactory knowledge after implementation immediately and after 3 months of follow-up, respectively. There was a high statistical significance pre-, and post-, and after three months (p <0.05).

**Table (3) Levels of Professional Commitment among Studied Students Throughout Different Phases of Training Program.** It shows that 55.5% of the studied students had a high level of professional commitment before implementing the program, 67% of them had a high level after implementation, and 74.3% of them had a high level after three months. There was a statistical significance pre- and after three months at t=2.562, P=0.011, as well as a statistical significance post- and after three months of program implementation at t=2.218, p=0.027.

**Table (4): Levels of Learning Burnout among Studied Nursing Students Throughout Different Phases of Training Program.** It shows that 35.3% of studied students had a low level of learning burnout before implementing the program, 96.2% of them had a low level after implementation and 86.6% of them had a low level after three months. There was a high statistical significance among pre-, post-, and post- after three months of program implementation (p <0.05).

**Table (5): Relationship between Knowledge of Exemplar Education, Professional Commitment and Students Learning Burnout Throughout Different Phases of Training Program.** There were highly statistically significant correlations between knowledge of exemplar education, professional commitment, and students learning burnout before and after 3 months of implementing the program (p <0.05).
Table (1): Personal characteristics of the studied students (N=315)

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age years:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>▪ 20</td>
<td>88</td>
<td>28.0</td>
</tr>
<tr>
<td>▪ 21</td>
<td>165</td>
<td>52.5</td>
</tr>
<tr>
<td>▪ 22</td>
<td>62</td>
<td>19.5</td>
</tr>
<tr>
<td>Mean±SD</td>
<td>20.71±0.52</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>▪ Male</td>
<td>69</td>
<td>22.0</td>
</tr>
<tr>
<td>▪ Female</td>
<td>246</td>
<td>78.0</td>
</tr>
<tr>
<td>Is nursing is the first choice in selecting your specialty for university education?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>▪ Yes</td>
<td>176</td>
<td>55.9</td>
</tr>
<tr>
<td>▪ No</td>
<td>139</td>
<td>44.1</td>
</tr>
</tbody>
</table>

Table (2): Levels of Exemplar Education Knowledge among Studied Students Throughout Different Phases of Training Program (N=315)

<table>
<thead>
<tr>
<th>Exemplar education knowledge</th>
<th>Phases of education program</th>
<th>Pairwise comparison</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-implementation</td>
<td>Post implementation</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Satisfactory knowledge</td>
<td>189</td>
<td>60.0</td>
</tr>
<tr>
<td>Unsatisfactory knowledge</td>
<td>126</td>
<td>40.0</td>
</tr>
<tr>
<td>Mean±SD</td>
<td>19.63±5.51</td>
<td>29±1.23</td>
</tr>
</tbody>
</table>

(p)¹: Paired test comparing pre and post the educational program
(p)²: Paired test comparing pre and after three months (follow up) the educational program
(p)³: Paired test comparing post and after three months (follow up) the educational program
(*) Statistically significant at p ≤0.05
Table (3): Levels of Professional Commitment among Studied Students Throughout Different Phases of Training Program (N=315)

<table>
<thead>
<tr>
<th>Professional commitment</th>
<th>Phases of education program</th>
<th>Pairwise comparison (p)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-implementation</td>
<td>Post implementation</td>
</tr>
<tr>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>High commitment</td>
<td>175</td>
<td>55.5</td>
</tr>
<tr>
<td>Average commitment</td>
<td>125</td>
<td>39.7</td>
</tr>
<tr>
<td>Low commitment</td>
<td>15</td>
<td>4.8</td>
</tr>
<tr>
<td>Mean ±SD</td>
<td>98.12±12.48</td>
<td>99.21±3.72</td>
</tr>
</tbody>
</table>

(p)^1: Paired test comparing pre and post the educational program
(p)^2: Paired test comparing pre and after three months (follow up) the educational program
(p)^3: Paired test comparing post and after three months (follow up) the educational program

(*) Statistically significant at p ≤0.05

Table (4): Levels of Learning Burnout among Studied Nursing Students Throughout Different Phases of Training Program (N=315)

<table>
<thead>
<tr>
<th>Learning Burnout</th>
<th>Phases of education program</th>
<th>Pairwise comparison (p)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-implementation</td>
<td>Post implementation</td>
</tr>
<tr>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>Low</td>
<td>111</td>
<td>35.3</td>
</tr>
<tr>
<td>Medium</td>
<td>128</td>
<td>40.6</td>
</tr>
<tr>
<td>High</td>
<td>76</td>
<td>24.1</td>
</tr>
<tr>
<td>Mean±SD</td>
<td>43.93±9.03</td>
<td>29.93±4.04</td>
</tr>
</tbody>
</table>

(p)^1: Paired test comparing pre and post the educational program
(p)^2: Paired test comparing pre and after three months (follow up) the educational program
(p)^3: Paired test comparing post and after three months (follow up) the educational program

(*) Statistically significant at p ≤0.05

Table (5): Matrix Correlation between Knowledge of Exemplar Education, Professional Commitment and Students Learning Burnout Throughout Different Phases of Training Program (N=315).

<table>
<thead>
<tr>
<th>Variables</th>
<th>Exemplar education</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre- implementation</td>
<td>Post</td>
<td>Follow up</td>
<td></td>
</tr>
<tr>
<td></td>
<td>R</td>
<td>p</td>
<td>R</td>
<td>P</td>
</tr>
<tr>
<td>Professional commitment</td>
<td>0.258</td>
<td>0.000**</td>
<td>-0.012</td>
<td>0.827</td>
</tr>
<tr>
<td>Students Learning Burnout</td>
<td>-0.149</td>
<td>0.008**</td>
<td>0.042</td>
<td>0.458</td>
</tr>
</tbody>
</table>

(*) Statistically significant at p ≤0.05, r = Pearson correlation
Discussion

A nursing student's development of a professional commitment to nursing should start with a bachelor's degree in nursing education. To increase nursing students’ professional commitment and decrease learning burnout, proactive educational interventions must be implemented during their third year of study, which serves as a transition from the safe and comfortable college environment to the real working world they will face (Lee & Lee, 2018).

There is a high statistical significance of exemplar education knowledge pre-, post-, and after three months for the studied nursing students. More than half of the studied students had satisfactory knowledge about exemplar education pre-program implementation; all of them had satisfactory knowledge after implementing the program immediately, which slightly decreased during the follow-up phase of the program. These results are due to exemplar education, which largely focuses on students' socialization-based cognitive development and might increase students' metacognitive awareness and promote academic self-regulation. This educational feature is prevalent in exemplar-based practices.

On the same line, the results of Tam (2021) found that exemplars provided students with active engagement in making and explaining evaluations of exemplars, as well as the generation of self-monitoring insights through grading workshops, discussion of grade results with peers and teachers, and evaluation of their strengths and weaknesses. All these activities, including the discussion of exemplars with students’ active participation, improved the process of knowledge development. Also, Hendry, et al., (2016) proved that using exemplars as a general technique enhances students' knowledge, skills, and guidance regarding writing a well-constructed response. In addition, Tanis (2020) study results revealed that the students agreed that exemplars provide insight into the learning process as well as allow them to see their responses to the questions.

In contrast, To, Panadero, & Carless, (2022) investigated the effects of various evaluation techniques, student academic ability, and dialogic usage of exemplars and found no differences in the student's knowledge and performance.

The current study results revealed a highly statistically significant effect of implementing an exemplar education program on the professional commitment of nursing students. According to this study's findings, implementing an exemplar education program increased nursing students’ expectations of themselves and they experienced greater guidance and encouragement from their clinical teachers and nursing staff members, which positively raised their degree of commitment to their job.

On the same line as these results are the findings of Zhao et al. (2022) who concluded significant associations between pre- and post-implementation professional commitment. Also, Wang & Yu (2021) revealed that all the professional commitment measurement scores significantly increased following the intervention.
The undergraduate nursing students’ degree of professional commitment was significantly increased by the one-week professional education program supported by the exemplar education strategy.

Additionally, by connecting with role models, students can strengthen their role expectations, emotional identity, and sense of belonging while the program is being implemented. This will increase their passion and confidence, which will improve their professional commitment and career choice (Clements, et al., 2016). Furthermore, Guerrero, Chênevert & Kilroy (2017) found that student-instructor interaction in an exemplar education intervention strengthened professional commitment through professional worth and favorable impressions. Likewise, Ayaz-Alkaya, et al., (2018) stated that exemplar education had a beneficial impact on nursing students' commitment to their careers.

The current study results revealed a high statistical significance of implementing an exemplar education program on learning burnout of nursing students. These findings due to exemplar education program enhance students’ participation and give examples of best practices being used in educational settings to help nursing students better control essential competencies. Also, faculty members provide students with study instructions and additional support, reducing their learning burnout. In agreement with current results, Wang, et al., (2019) found that nursing instructors' interactions during the program intervention in a clinical practice environment, acting as role models lead to improve the students’ satisfaction and decreased levels of learning burnout. Moreover, McCarthy et al., (2018) reported that programs including peer mentoring, exemplar education, mindfulness, and simulation education reduce the academic stress and burnout experienced by nursing students. In contrast, Hwang & Kim (2022) found no meaningful differences in nursing students' clinical practice experience and academic burnout.

The current study results revealed that implementing an exemplar education program improves the level of professional commitment of studied students throughout different phases of the program. Most of the studied students had a high level of professional commitment after program implementation. There was a highly statistically significant relation between pre- and after three months of program implementation.

In agreement with previous results, the findings of Ayaz-Alkaya, et al., (2018) indicated that after the training program, the students' satisfaction with the nursing field and desire to practice as nurses after graduation increased their level of commitment to their profession. Furthermore, Tural Büyük, et al., (2014) found that the training program encouraged the students to consider themselves more competent since it contributed to the development of their knowledge and skills and explained the higher degree of professional commitment among nursing students. Moreover, Hoş & Oksay (2015) emphasized that a significant difference was found between the
means of professional commitment and the extent to which nurses’ stay in their current positions.

The current study results reveal that implementing an exemplar education program decreased the level of learning burnout among the studied students throughout the different phases of the program. There is high statistical significance pre-, post-, and post-after three months of program implementation.

These results are consistent with the findings of Räisänen et al., (2020) who found that students are moving towards self-control and self-regulation strategies in an exemplar education that decrease levels of learning burnout. In addition, Chang (2020) revealed that students had a high level of academic adaptability during educational program that enhanced their persistence, planning, and task management and tended to be able to develop action plans that lessened their academic burnout. Furthermore, Tang, et al., (2021) concluded that group learning, instructors’ guidance, and exemplars improved students’ self-efficacy in learning behavior, and selecting positive coping strategies helped them grow in their exploration, learning, and acceptance of themselves, resulting in a decrease in learning burnout.

In contrast, the findings of Carter, et al., (2018) noted that despite students' perceptions of their efficacy, the benefits of exemplars did not improve their learning outcomes. Also, Curry, Webb & Latham (2016) conducted a longitudinal study to examine the effects of implementing an exemplar program on students' outcomes over a 4-year period and revealed no correlation between an exemplar education program and their professional commitment or learning burnout, either positive or negative.

**Conclusion**

The current research findings concluded that after the program was implemented, the students' knowledge level was higher than before the intervention level. There was a highly statistically significant in implementing exemplar education program on nursing students’ professional commitment and learning burnout.

**Recommendations**

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

**For faculty management:**

- Incorporate exemplar education into the nursing curriculum.
- Provide nursing student feedback techniques on a regular basis.
- Provide a support system for nursing students through a panel of educators and former students.
- Perform a mentorship program to minimize levels of burnout and maintain wellness during the study period.
- Provide rewards for hard work and achieving learning goals.
- "Identify students’ expectations and strive to enhance their professional commitment".
For nursing students:
- Maintain work-life balance and take time for social activities to decrease stress and burnout.
- Apply strategies for time management and avoid procrastination in tasks.
- Maintain good physical conditions by eating well, getting adequate sleep, and practicing exercise.

Future research
- Investigate factors leading to experience of burnout during nursing education.
- Examine other factors that enhance professional commitment and decrease learning burnout as career development, organizational support

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