

## Student Engagement Increases Caring Behaviour of Nursing Students

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### ABSTRACT

**Background:** Even though caring behavior is introduced since nursing students enter the institution, caring behavior is still low, this may be due to a lack of student involvement.

**Purpose:** The study provides insight into the relationship between student engagement and caring behaviour in nursing students.

**Methods:** A descriptive correlational study was conducted. Data were collected from 250 nursing students in the second to fourth years who had clinical practice experience. A cross-sectional study design was conducted. Data were collected using a modified Caring Behaviour Inventory (CBI) and a Student Course Engagement Questionnaire (SCEQ). Pearson product-moment correlation analysis techniques were used.

**Results:** The overall student engagement score was  $73.7 \pm 6.8$  on average while the caring behaviour score was  $74.6 \pm 6.5$ . Student engagement was significantly associated with caring behaviour  $r = .905$  ( $p < 0.001$ ).

**Conclusion:** Based on the finding that student engagement is strongly linked to the display of caring behavior in nursing students, it is clear that active engagement in the learning process is critical for fostering an understanding of caring behaviour. This study provides valuable insights for nursing lecturers seeking to increase student engagement and improve the development of caring behaviour among nursing students. By incorporating strategies that encourage active student participation and engagement, nursing departments can help to facilitate the development of caring behavior among their students.

**Keywords:** Student Engagement; Caring Behaviour; Nursing Student.

## **BACKGROUND**

To enhance the quality of care for patients and promote public health, nurses must possess professional skills that enable them to provide direct patient care, safeguard individuals, and assist with daily living tasks (Karami, 2017)(Fukada,2018). Aspiring nurses are faced with a demanding role that requires them to acquire a comprehensive foundational knowledge, develop advanced skills and competencies, and work collaboratively with inter-professional teams in order to provide care to a diverse range of patients (Fawaz,2018). In addition to possessing the necessary skills and knowledge, nurses must also exhibit positive attitudes when caring for patients. These attitudes include providing comfort, showing affection, paying close attention, (Nesengani , 2019) demonstrating empathy, and displaying genuine concern for patients. These qualities are essential for delivering high-quality nursing care services (Firmansyah, 2019).

According to previous research, professional nurses have been found to exhibit lower levels of caring behavior. However, nursing education aims to instill caring behavior as a learning outcome, which can be applied not only in nursing practice but also in daily life (Novelina, 2021). As caring behavior plays a critical role in nursing care, it is important for nursing students to be guided and encouraged to internalize this behavior during their education courses. This will help to ensure that they are equipped with the necessary skills and attitudes to provide high-quality care to patients in their future careers as nurses. According to Subke's research conducted in 2020, the experience of engaging in caring practices within a learning environment can have a significant impact on nursing students. This experience can create a lasting impression and contribute to the development of the students' personality and caring behavior (Subke, 2020).

In Indonesia, the education of professional nurses is divided into two stages: academic and professional. During the academic stage, students attend classes, laboratories, and preclinical sessions for eight semesters. After completing this stage, they proceed to the professional stage where they gain practical experience and professionalism through clinical practice in hospitals, primary health care centres, and communities for two semesters. The national educational program for nursing in Indonesia employs a competency-based curriculum that focuses on the development of cognitive, affective, and psychomotor skills in students. The curriculum aims to achieve specific learning outcomes that are essential for the practice of nursing (Nelwati, 2019).

In order to develop the necessary skills and competencies and achieve excellent learning outcomes, it is essential to actively engage nursing students in the learning process. The success of this engagement can be influenced by several factors, and it is important to prioritize student involvement in order to optimize their learning experience (Mohi, 2019)(Bond,2019).

Considering the background of caring behavior in nursing students and the limited research in nursing education, this study aims to provide insight into the relationship between student engagement and caring behavior in nursing students. The study seeks to investigate how student engagement impacts the performance of caring behavior in nursing students.

## **OBJECTIVE**

The study provides insight into the relationship between student engagement and caring behaviour in nursing students.

## METHODS

This study was conducted at the Diploma Three Study Program at Poltekkes Kemenkes Semarang Indonesia, with participants from Semarang and Makasar. The study employed a cross-sectional design and involved 250 nursing students who were in their second and third year of study and had completed clinical practice. The students had a good understanding of the teaching and learning system and the concept of student engagement at their college. The sample was selected using stratified random sampling.

Data collection techniques were carried out through surveys using structured questionnaires. Respondents were asked to provide a perceptual assessment of each question and or statement using the Caring Behaviour Inventory (CBI) and Student Course Engagement Questionnaire (SCEQ) questionnaires. Data collection was conducted after nursing students gave their consent to participate in this study and received information about the purpose, process and guarantee of data confidentiality in research. Questionnaires were distributed online to respondents to be filled in according to their experiences.

Student engagement was measured using the modified Student Course Engagement Questionnaire (SCEQ) adapted from the previous study originally developed by Handelsman et al. (2005). It applied the Likert scale consisting of: (1) very dissatisfied, (2) not appropriate, (3) somewhat appropriate, (4) appropriate and (5) very appropriate. The modified Student SCEQ content consists of the skill dimensions, emotional, participation/interaction, and performance engagement. In the meantime, the modified Caring Behaviour Inventory (CBI) instrument developed by Wolf (1988) consists of 24 questions (12,13) using the likert scale of 1 to 6. It comprises (1) never, (2) almost never, (3) sometimes, (4) usually, (5) often, and (6) always. The CBI content consists of assurance of human preference, respectful preference to other, positive connectedness, professional knowledge and skills and attentiveness to the other's experience.

All research instruments have been tested for validity and reliability. The SCEQ instrument shows valid with a reliability value of Cronbach's Alpha at 0.916 and the CBI instrument shows valid with a reliability value of Cronbach's Alpha 0.928.

Univariate analysis like mean, standard deviation, minimum and maximum, percentages were used to describe age, gender, GPA (Grade Point Average). Bivariate correlation analysis of the Pearson product moment correlation test was performed to determine the relationship between student engagement variables and caring behaviour, with a significance number of 0.001.

## RESULTS

### Respondent Characteristics

The two hundred and fifty participants were participated in this study. The majority of respondents were female (n: 218, 87.2%), while male students accounted for 32 students (12.8%). Most of them were aged 21 years old (n: 78, 31.2%), followed by 20 years old (n: 71, 28.4%) and 22 years old (n: 64, 25.6%). With regards to academic score (GPA), they had a GPA mean of  $3.5950 \pm 0.57$  (**Table 1**).

**Table 1.** Respondent Characteristics (n=250)

| Variable | n (%)          | Min.                    | Max.  | Mean    | SD      |
|----------|----------------|-------------------------|-------|---------|---------|
| Ages     | 250 (100)      | 16.00                   | 35.00 | 20.9920 | 1.70751 |
| Gender   | Male<br>Female | 32 (12.8)<br>218 (87.2) |       | 1.8720  | 0.33476 |
| GPA      |                | 3.19                    | 4.00  | 3.5950  | 0.57276 |

### Student Engagement in Learning and Clinical Practice

Results relating to student engagement are shown in **Table 2**. In terms of engagement with various domains of teaching and learning, students felt most engaged when they learnt skills (SSE, mean=24.85, SD=2.494) and least engaged when activities related to performance (SPeP, mean = 12.24, SD = 1.5). Interestingly, when the scores related to the emotional domain, students did not perform higher values (SEE, 15.84±1.67) compared to the skill engagement domain.

With regards the skill engagement (SSE) domain, there were items with the highest scores, in particular they felt more engaged with strengthening lecture materials and competences (4.48±0.5) as well as with lecture and discussion sessions, interacting with lecturers and clinical instructors (4.47 ± 0.6). In contrast, the lowest scores were found regarding with studying materials from various sources/references (3.66 ± 0.7) and implementation of lecture materials in everyday life (3.66 ± 0.507) (**Error! Reference source not found.**). The mean of the overall domains in the student engagement is 73.68 ± 6.8 (**Table 4**).

**Table 2.** Student Engagement Scores in Nursing Students (n=250)

| No.                               | Statement  | Frequency Category (%) |      |              | Mean         | SD   |
|-----------------------------------|--|------------------------|------|--------------|--------------|------|
|                                   |  | NS                     | S    | VS           |              |      |
| <b>Skill Engagement (SSE)</b>     |  |                        |      | <b>24.85</b> | <b>2.494</b> |      |
| 1.                                | I try to study regularly   | 3.6                    | 49.6 | 46.8         | 4.43         | .564 |
| 2.                                | I try to master the lecture material and competence                                    | 1.2                    | 49.6 | 49.2         | 4.48         | .524 |
| 3.                                | I study material not from various sources/references                                   | 41.6                   | 50.8 | 7.6          | 3.66         | .615 |
| 4.                                | I use my spare time to study and explore lecture notes                                 | 23.2                   | 48,8 | 28.0         | 4.05         | .715 |
| 5.                                | I do not attend and listen to lectures given by lecturers and CI                       | 28.4                   | 67.6 | 4.0          | 3.76         | .515 |
| 6.                                | I always attend lectures and discussions with lecturers and CI                         | 2.4                    | 48.0 | 49.6         | 4.47         | .546 |
| <b>Emotional Engagement (SEE)</b> |  |                        |      | <b>15.84</b> | <b>1.673</b> |      |
| 7.                                | I have never tried to relate and apply lecture material in everyday life               | 35.6                   | 62.8 | 1.6          | 3.66         | .507 |
| 8.                                | I try to make lectures interesting   | 7.6                    | 55.6 | 36.8         | 4.29         | .600 |
| 9.                                | I always think about the lecture material in the time lag between lecture and practice | 17.6                   | 50.4 | 32.0         | 4.14         | .691 |
| 10.                               | I'm not interested in studying lecture material and practice                           | 27.2                   | 70.8 | 2.0          | 3.75         | .479 |

| No.   | Statement   | Frequency Category (%) |      |      | Mean         | SD           |
|---|---|------------------------|------|------|--------------|--------------|
|   |   | NS                     | S    | VS   |              |              |
| <b>Participation/Interaction Engagement (SPE)</b> |   |                        |      |      | <b>20.75</b> | <b>2.043</b> |
| 11.   | I actively participate during practice  | 2.0                    | 51.2 | 46.8 | 4.45         | .537         |
| 12.   | I dare to ask when I don't understand the explanation of assignments or exams that will be carried out to the lecturer/CI | 7.6                    | 48.8 | 43.6 | 4.36         | .620         |
| 13.   | I carry out lectures and practice with less enthusiasm  | 24.8                   | 68.4 | 6,8  | 3,82         | .534         |
| 14.   | I do not participate actively in group discussions  | 31.2                   | 66.8 | 2,0  | 3,71         | .498         |
| 15.   | I am happy to help fellow students who have difficulty during practice  | 1.2                    | 56.4 | 42,4 | 4,41         | .517         |
| <b>Performance Engagement (SPE)</b>               |   |                        |      |      | <b>12.24</b> | <b>1.473</b> |
| 16.   | I got good test scores  | 19.6                   | 49.6 | 30.8 | 4.11         | .702         |
| 17.   | I did the exam well and carefully   | 6.4                    | 53.6 | 40.0 | 4.34         | .594         |
| 18.   | I lack confidence that I can learn and excel in class   | 36.4                   | 47.6 | 16.0 | 3.80         | .696         |

\*NS: Not suitable, S: Suitable, VS: Very suitable

### Level of nursing students' caring behavior

In this current study, caring behaviour was measured in terms of psychosocial (i.e. human presence positive connectedness, respectful defence to other) and technical caring behaviour (i.e. professional knowledge and skills). Thus, the mean and average mean score of each dimension were as follows.

The overall average of caring behaviour is  $74.58 \pm 6.5$  (**Table 4**). In psychosocial caring behaviour, averages of assurance of human presence (CBA), positive connectedness (CBP), respectful defence to the other (CBR) mean were  $20,6 \pm 1.95$ ,  $20.69 \pm 1.9$ , and  $20.75 \pm 1.9$ , respectively. In contrast, an average of professional knowledge and skills was observed much lower (CBPk) at  $12.50 \pm 1.3$  compared to the psychosocial caring behaviour.

In the technical caring behaviour, the highest scores were derived from technical caring behaviour (i.e. patients' trust in maintaining patient information confidentiality - CBPk) with a mean of 4.56 (SD: 0.513) while the psychosocial caring behaviour aspect (i.e. patients' family involvement in caring - CBP) obtained lower score with a mean of 4.44 (SD: 0.514) than that of patients' trust (CBPk). In contrast, the lowest value was observed in the psychological caring behaviour (i.e. regular break time away from patients – CBP) with a mean of 3.64 (SD: 0.663) and in the technical caring behaviour (i.e. suppressed performance to patients - CBPk) with a mean of 3.64 (SD: 0.544) (**Table 3**).

**Table 3.** Caring Behaviour Scores In Nursing Students (N=250)

| No.   | Statement   | Frequency Category (%) |      |      | Mean          | SD            |
|---|---|------------------------|------|------|---------------|---------------|
|   |   | S                      | O    | A    |               |               |
| <b>Assurance of Human Presence (CBA)</b>      |   |                        |      |      | <b>20.644</b> | <b>1.9526</b> |
| 1.  | I always come back to see the patient's condition voluntarily   | 1.2                    | 57.6 | 41.2 | 4.40          | .515          |
| 2.  | I always tell patients don't hesitate to call me if there's a problem   | 2.8                    | 50.4 | 49.2 | 4.44          | .551          |
| 3.  | I always help relieve the pain and pain felt by the patient   | 4.0                    | 58.8 | 37.2 | 4.33          | .550          |
| 4.  | I pay less attention to the conditions and complaints experienced by patients when I see them                   | 29.6                   | 67.6 | 2.8  | 3.73          | .503          |
| 5.  | I don't give proper care to patients  | 28,8                   | 68,4 | 2,8  | 3,74          | ,499          |
| <b>Respectful Defence to the other (CBR)</b>  |   |                        |      |      | <b>20.75</b>  | <b>1.928</b>  |
| 6.  | I do not serve the patient as an individual and do not respect the patient's rights                             | 21.2                   | 77.6 | 1.2  | 3.80          | .430          |
| 7.  | I do not provide support and motivation to patients   | 22.0                   | 75.6 | 2.4  | 3.80          | .454          |
| 8.  | Show empathy to the patient   | 2.8                    | 52.8 | 44.4 | 4.42          | .548          |
| 9.  | I provide opportunities for patients to express their feelings and opinions about the care provided to patients | 2.4                    | 55.2 | 42.4 | 4.40          | .538          |
| 10.   | I always visit and greet patients during my service whether needed or not                                       | 9.6                    | 48.0 | 42.4 | 4.33          | .643          |
| <b>Positive Connectedness (CBP)</b>           |   |                        |      |      | <b>20.69</b>  | <b>1.932</b>  |
| 11.   | I accompany and teach patients about the actions and treatments given   | 4.0                    | 57.2 | 38.8 | 4.35          | .555          |
| 12.   | I spend my free time not with patients  | 46.4                   | 43.2 | 10.4 | 3.64          | .663          |
| 13.   | I help patients to behave in a healthy way  | 2.0                    | 52.8 | 45.2 | 4.43          | .535          |
| 14.   | I show an impatient attitude in treating patients   | 19.6                   | 78.4 | 2.0  | 3.82          | .431          |
| 15.   | I try to include patients and families in care  | 0.8                    | 54.0 | 45.2 | 4.44          | .514          |
| <b>Profesional knowledge and skill (CBPk)</b> |   |                        |      |      | <b>12.50</b>  | <b>1.306</b>  |
| 16.   | I am confident to take action on patients (such as injections, infusions, etc.)                                 | 12.0                   | 46.0 | 42.0 | 4.30          | .672          |
| 17.   | I don't show my skills and knowledge professionally to patients   | 39.2                   | 57.6 | 3.2  | 3.64          | .544          |
| 18.   | I am able to maintain confidentiality and the information that patients entrust to me                           | 0.8                    | 42.0 | 57.2 | 4.56          | .513          |

\*S: Sometimes, O: Often, A: Always

**Table 4.** Summary of Statistic Descriptive of the Student Engagement and Caring Behaviour of Nursing Students (N=250)

|                    | n   | Minimum | Maximum | Mean  | SD    |
|--------------------|-----|---------|---------|-------|-------|
| Student Engagement | 250 | 60.00   | 90.00   | 73.68 | 6.769 |
| Caring Behaviour   | 250 | 61.00   | 90.00   | 74.58 | 6.520 |

### The correlation between student engagement and caring behaviour among nursing students

The Pearson correlation test revealed a significant association between student engagement and caring behaviour ( $p < 0.01$ ). This result indicates a correlation between student engagement and caring behaviour of nursing students (Table 5).

**Table 5.** Correlation of Student Engagement and Caring Behavior of Nursing Students (n=250)

|    |                     | SE      | PC      |
|----|---------------------|---------|---------|
| SE | Pearson Correlation | 1       | 0.905** |
|    | Sig. (2-tailed)     |         | 0.000   |
|    | N                   | 250     | 250     |
| PC | Pearson Correlation | 0.905** | 1       |
|    | Sig. (2-tailed)     | 0.000   |         |
|    | N                   | 250     | 250     |

\*\**Correlation is significant at the 0.01*

### Discussion

Student engagement refers to the level of involvement and participation exhibited by students in the learning process. When students are actively engaged, they are more likely to pay close attention, participate fully, and contribute to class discussions and activities. As a result, higher levels of engagement can lead to increased understanding and retention of information among students. This study focuses on how student engagement can impact the development of caring behavior in nursing student (Hudson, 2015). According to Rahayu, to engage students in the learning process means to involve their psychological investment and active efforts to understand and master the lecture materials, skills, and instructions provided (Diastama, 2016). This deeper level of involvement can improve students' understanding and retention of information, leading to better academic performance and outcomes.

This study was conducted on 250 nursing students who had experience in clinical practice to answer our research study question regarding to the student engagement and caring behaviour. This study found the average score of nursing student engagement at 73.68 which is classified as the highly appropriate category (73-90). Some dimensions of the student engagement measured in this study included skill engagement, emotional engagement, participation/interaction engagement and performance engagement.

Questions regarding to mastering lecture materials and competences (SSE) and be present in lectures and discussions (SSE) show the highest average scores among all questions in the student engagement assessment. This indicates that students in this study had high motivation and willingness to understand lecture materials and being active in the learning process. In the study conducted by Diastama and Dewi in 2021, they found a moderate and positive correlation between student engagement and student learning motivation. This suggests that as student engagement increases, so does the level of student motivation towards learning (Diastama, 2021). In other words, the more invested and involved students are in the learning process, the more motivated they are to learn and succeed. However, a number of previous studies stated that levels of motivation negatively associated with the student engagement (Mustaimah, 2020) in which student engagement scores decreased as the grade levels of motivation increased (Nayir, 2017). The differences observed in the study outcomes may be attributed to variations in student motivation.

In comparison, low scores were found in the following questions studying from various learning sources apart from lecture materials (SES) and low application of studying materials in everyday life (SSE). These indicate that there were half of respondents initiated to collect various references to understand their course materials. However, there were still relatively a great number of students who had low critical thinking by only studying materials obtained from their lecturers as well as seeking knowledge gained from their practice during patients' care.

A similar study finding on student engagement conducted by Hudson, He and Caracco reported a high average engagement on each item or overall average score (3.88-4.49). The results also showed a significant difference between student engagement level 2 and 4 ( $p=0.013$ ). Students reported high results in teamwork and collaboration, as well as positive responses to their lecturers particularly in trying to increase students understanding, to learn hands-on, and to speed up learning process. Additionally, mentor support can also provide guidance and feedback to nursing students, helping them to develop and refine their caring skills and behavior (Hudson, 2019). Ultimately, this can contribute to the development of a more engaged and competent nursing workforce.

Lecturer interpersonal relationships are a core element in academic settings that exert a central effect on student engagement (Jiang, 2021). Establishing a positive and healthy relationship between lecturers and students can have several benefits, including increased student participation in the learning process (behavioral engagement), fostering a positive and optimistic attitude towards learning and assignments (emotional engagement), building confidence in students when facing challenging tasks (cognitive engagement), and encouraging students to take ownership of their educational goals and requirements (agent engagement (Jiang, 2021)(Ruzek,2016). By promoting these types of engagement, students are more likely to feel motivated, invested, and empowered in their learning, which can lead to improved academic outcomes and long-term success.

Student engagement is essential in both classroom and clinical practice settings for nursing students. A research study of Sattar et al., (2018) showed that three domains of student engagement (Hudsonm 2015)(Vollet, 2017) i.e. meaningful process (3.75), participation (3.35) and attention focus (3.25) had a high average score). The three subdomains also had a positive correlation in which one subdomain increased the other subdomains. All domains of student engagement were critical to student nurses in classrooms as well as in clinical practice setting (Abdul, 2018). The engagement of students in the clinical environment is related to the diversity of patient status, conditions which enable students learning various cases, and mentor support and care improve the quality of being 'engaged' between student nurses and patients by creating decisions in collaboration(. In clinical practice, engagement can involve active participation in patient care, collaborating with the healthcare team, and seeking feedback from mentors or supervisors.

It's important for nursing students to comprehend caring abilities since caring plays a vital role in establishing a relationship between nurses and patients while providing treatment. This study reveals that the average of caring behaviour was 74.58 which is classified as the highly appropriate category (73-90). This indicates a positive vibe of caring behaviour during a clinical practice which is conducive to personal development and caring emotional among nursing students. In order to be fluent in caring, it requires the deeper meaning of caring, as well as how to 'be caring' or how to 'be caring' (Watson, 2008). This is in line with previous

research that nursing students needed to understand the value of patient privacy confidentiality and agreed that protecting their privacy was their duty and moral obligation as nurses. In addition, nursing students argued that client privacy was closely related to the client's dignity which must have been maintained (Ladis, 2021).

Although the question regarding patients' family involvement in caring (CBP) also had the highest mean score, its score was lower than that of the trust of maintaining confidentiality. This finding also confirmed that technical caring behaviour was more perceived among students than the psychosocial caring behaviour. Despite that, the presence of patient's families allows patients to know information about their status and improve patients' condition as well as improve communication between nurses and families and increase trust in treatments provided to patients (Shibily, 2021). Furthermore, a family was a source of bonding feelings which bridge patients and nurses in talking care of patients which in turn could increase nursing job satisfaction (Hagedom, 2021).

When the nursing students have an awareness and understanding of insecurities support can be provided to promote growth and develop emotional intelligences. This will lead to the development of mutual relationships and engagement with their patients (Monsen, 2017). The practice of caring behaviour in a learning environment during the educational process involves various parties in particular hospital staff, colleagues, unit managers, clinical facilitators and peers to provide emotional support during their clinical practice to get the best caring experience (D'Souza, 2015)(Warshawski, 2018).

Various factors and ways to improve caring behaviour in nursing students require an active involvement of students during the learning process in colleges. Derived from data analysis, the correlation between student engagement and caring behaviour in this study showed significant results with ( $p < 0.01$ ). This result indicates that a correlation between student engagement and caring behaviour of nursing students. The finding is in line with Mokodongan (2020), that in his research on work engagement, it showed a significant value of  $0.012 < 0.05$  which indicated that work engagement had a positive and significant effect on caring behaviour among nurses (Mokodongan, 2018). Another study by Sari, Parut and Kusnanto (2017) regarding to a flipped classroom learning method, which is a method used to increase student engagement (Busebia, 2020), concluding that the flipped classroom learning method could be used to improve the caring behaviour of new student nurses. The implementation of the reversed classroom learning method proved to be effective in increasing caring behaviour in student nurses. Some factors affected the flipped method included individual characteristics, teaching materials, instructors/facilitators and the time available for learning (Sari, 2017). Acceptance of the flipped classroom method was more conducive because it was taken into account critical thinking aspects which enabled students to write their opinion in a piece of paper and used more rational than traditional views as well as it involved aspects of innovation and internalization in learning experiences (Hanta, 2014).

Study of Sun et al (2021) also showed that student engagement encouraged a positive connection with teachers. Student engagement was driven by caring behaviour from teachers (Sun, 2021) which was an important aspect of teacher-student interpersonal relationships (Gasser, 2018). In addition, it forms teacher supports for students and demonstrates awareness in student learning (Gabrys, 2016). Teachers can encourage students' positive emotions by engaging students in meaningful assignments, providing an environment that enhances their contribution to classroom negotiations and presenting empathy (Gedzune, 2015). Teacher care

inspires student abilities, such as engagement, self-confidence, well-being, feelings of respect, and achievement (Havik, 2020)(Derakhsan, 2019)

Moreover, Lei et al. (2018) study showed a moderate positive correlation of all aspects in the student engagement concept (overall, behavioural, emotional, and cognitive) with academic achievement (Lei, 2018). In other words, the higher the student involvement, the higher the student's academic performances.

The engagement of nursing students is related to development in increasing student motivation to always continue and complete nursing professional education. Engaged students will have higher ethical and behavioural standards, subsequently create care and reliable students who are competent in working as a team (Hudson, 2017). This also affects the improvement of student care, both now and in the future.

Skilled practice, well-informed knowledge, and effective communication are known as good characteristics of caring behaviour. Hence, it is important to enrich knowledge and gain as many experiences as possible for nursing students. Furthermore, a caring treatment approach to patients is regarded as appropriate if it is accompanied by up-to-date knowledge and by performing procedural care in skilled and safe manners which in turn lead to recovery, patient satisfaction, and reduction of health care costs through effective and efficient relationships with patients (Grahramanian, 2020).

Nursing student engagement can be identified when educators/lecturers demonstrate integrity, honesty, care, and support for their students. Their aim is to assist students in acquiring the necessary skills and knowledge to apply them thoughtfully and conscientiously when providing nursing care to patients.

### **Conclusion**

Student engagement is an important aspect in encouraging students to actively participate and be involved in the learning process to master nursing materials and skills both in the classroom and in the clinical practice environment. Caring behaviour is one of the professional skills of nurses that are required to be possessed by nurses in carrying out the patient's nursing care. This caring behaviour is instilled during the educational process in a learning environment and involves various parties such as teachers/lecturers, peers, faculty staff, hospital staff, colleagues, unit managers, and clinical facilitators/instructors. This study found a correlation between student engagement and caring behaviour of nursing students ( $p < 0.01$ ). Student engagement is also driven by the caring behaviour of educators which allow students to understand what and how caring behavior is and build trust and sensitivity in caring behaviour.

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### **Conflict of interest**

The author declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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