

## Teacher - Student Interaction and its Relation to Nursing Administration Course Engagement among Nursing Students

Marwa Mohamed Abu El-Hassan, Rabab Mahmoud, Samah Mohamed

Department of Nursing Administration- Faculty of Nursing, Ain Shams University - Egypt.

### Abstract

**Background:** Interactions between teachers and their students play a pivotal role in academic engagement as a general and course engagement especially. **Aim of the study:** It aimed to assess teacher-student interaction and its relation to nursing administration course engagement among nursing students. **Research design:** A descriptive correlational design was used to carry out this study. **Setting:** The study was conducted at Faculty of Nursing-Ain Shams University. **Subjects:** The study subjects included 133 out of 202 nursing student throughout the academic year (2020-2021) who enrolled in nursing administration course. **Tools:** Data were collected by using Teacher-Student Interaction Questionnaire and Student Course Engagement Questionnaire. **Results:** The majority (93.2%) of nursing students had positive behavior regarding teacher-student interaction. In addition, more than three fifth (62.8%) of nursing students had high level of nursing administration course engagement. **Conclusion:** There was a highly significant statistical positive correlation between total teacher-student interaction and total nursing administration course engagement among nursing students. **Recommendations:** Using multiple teacher-student communication channels to improve student course engagement,, Offering students the opportunity to engage in classroom projects during class to improve relationships between the student and teacher.

**Key words:** Course engagement, Teacher-student interaction, Nursing students, Nursing administration.

### Introduction:

Teacher-student interaction plays a critical role in the initiative to improve attrition rates or persistence and quality teaching and learning in colleges and universities. Better understanding teacher-student interactions will allow community colleges to identify strategies to increase classroom engagement, academic performance, and persistence (Kaufmann & Vallade, 2020).

The main variable in the learning environment is not the student, but the teacher. Good teachers have high hopes for their students and even higher opportunities for themselves. These teachers identify the importance of involving with their students, that if they were not involved with students emotionally then impact on student minds may be impossible (Alley, 2019).

When the students observe a sense of control and security in the learning environment, they are more engaged because they look to the learning with eagerness and strength. Students become energetic participants in their own learning. That's why, the first

priority to help a student become more motivated and involved, and thus educationally successful, is constructing and retaining positive teacher and student interaction (Omodan, 2018).

Relationship is that ideal bond that permits educator and learner to work well. The influential teacher constructs this interaction initial in the year and works to uphold it. When good Relationship has been constructed, learners and educators enjoy with each other and the class, and learners feel more inspired to do well. Positive interaction fosters student's self-correction and social skills improvement and low the levels of behavior problems (Sulistyani, 2020).

Engagement at the course level has been found to predict a student's intrinsic motivation towards the course and also predict their self regulation in regards to the course and its activities. Course engagement is likely to be influenced by elements such as teacher-student interactions. Teacher-student interactions may be the most important element in student course engagement. This is due to positive experiences

students have in the course involving their teachers (Shin & Bolkan, 2021).

Course engagement refers to how active a student is involved in a particular learning activity within the classroom environment. There has been a greater focus on classroom engagement over the years, partly because there is a strong relationship between course engagement and positive student outcomes like grades and graduation rates (Dennie et al., 2019).

Student course engagement promotes a sense of belonging and builds social interconnection. Incorporating course engagement into the cultures (guidelines and procedures, organized inside and outside class activities) of colleges and universities has developed into a nationwide discussion (Qureshi et al., 2021).

Interaction and course engagement are closely related and even used interchangeably. Student course engagement is developed through interaction. Teacher-student interaction leads to higher student engagement in courses. The use of multiple Teacher-student communication channels may be highly related to student course engagement (Martin & Bolliger, 2018).

### **Significance of the Study:**

The researcher as a teacher noticed that certain behaviors in classroom such as cooperation, listening to students, empathy, trust and friendliness made students more motivated and also enhanced their performance. On the other hand he noticed that teachers who were harsh, dissatisfied, and impatient made learning difficult to enjoy for students (Amerstorfer & Freiin, 2021).

Teacher-student interaction is not only the center of all classroom activity, but interaction is also " at the heart of learning ". Teachers are key adults who shape students' learning particularly through classroom interactions. If we don't put teacher-student interaction into consideration, this will lead to low level of student performance, achievement and course engagement (Liu & Chiang, 2019).

This study would promise a practical contribution by assessing teacher-student

interaction and it's relation to nursing administration course engagement among nursing students.

### **Aim of the Study:**

**This study aimed to assess teacher-student interaction and it's relation to nursing administration course engagement among nursing students through:**

1. Assessing teacher student interaction among nursing students.
2. Assessing nursing administration course engagement levels among nursing students.
3. Finding out the relationship between teacher-student interaction and nursing administration course engagement among nursing students.

### **Research Question:**

Is there a relationship between teacher-student interaction and nursing administration course engagement among nursing students?

### **SUBJECT AND METHODS**

#### **1- Research Design:**

A descriptive correlational design was used to carry out this study.

#### **2- Study Settings:**

This study was conducted at Faculty of Nursing-Ain Shams University. It contains eight scientific departments namely, Medical Surgical Nursing department(I,II), Critical nursing department, Maternity and gynecology nursing department, Geriatric department, Pediatric Nursing department, Community Health Nursing department, Psychiatric and Mental Health Nursing department and Nursing Administration Department.

#### **3- Subjects:**

The subjects of the study was 133 out from (202) nursing students who enrolled in fourth scholar year during academic year (2020-2021). The selection technique was simple random sampling technique.

#### **4- Tools of Data Collection:**

Data for this study was collected by using two tools namely Teacher - Student

Interaction Questionnaire and Student Course Engagement Questionnaire (SCEQ).

### **First tool: Teacher-student Interaction Questionnaire:**

It aimed to measure classroom teachers' behavior and their interactions with students, It was developed by **Wubbels & Brekelmans (2005)** and modified by the researcher. It consisted of two parts:

**Part I: Personal characteristics:** This part focused on collecting data pertaining to personal characteristics of nursing students including age, gender, place of residence, marital status, number of brothers, rank among brothers, pre-university education, member of student families, member of youth care activities.

**Part II:** This part consists of 48 items which are classified into four subscales: dominant, cooperative, submissive and oppositional .Each subscale consists of twelve items.

#### **❖ Scoring system:**

Responses of participants were measured on a 5 points likert scale ranged from always, often, sometimes , rare, never. Always was scored as "4", while never was scored as "0".The negative words got reversed score. All items are summed up and a mean score is calculated. Study subjects had negative behavior regarding interaction if total score was less than 60%. While it is considered positive if score was equal to or more than 60% (**Ahmad, Shaharim, & Abdullah, 2017**).

### **Second tool: Student Course Engagement Questionnaire:**

It aimed to study college student course engagement. It was developed by **Mandernach (2015)** and modified by the researcher. It consisted of 23 items which are classified into four subscales: skills (9 items), participation/interaction (5 items), emotional (6 items) and performance (3 items).

#### **❖ Scoring system:**

The items in the student course engagement questionnaire were scored on a 5 points likert scale ranged from very characteristic of me, characteristic of me,

moderately characteristic of me, not really characteristic of me, not characteristic of me. Very characteristic of me was scored as "5". While not characteristic of me was scored as "1". The items were summed-up and the total divided by the number of the items for giving mean scores. Study subjects had low course engagement if total score was less than 40%. While it is considered moderate if score was ranged from 40-60% and it is considered high if total score was more than 60% (**Dunn, & Kennedy, 2019**).

**5- Tool validity:** Validity for preliminary form of the questionnaires was presented to a jury group for face and content validation. The jury group consisted of five experts in the field of nursing administration, medical surgical nursing and mental health nursing departments affiliated to Ain Shams University (Two Assistant professors from nursing administration department), (Two professors from medical surgical nursing department), (one professor from mental health nursing department). The process involved their general or overall opinion about the tools of data collection. Each tool was assessed for its clarity, Comprehensiveness, Simplicity, understanding and applicability. According to the jury opinions modifications as rephrasing and adding or omission was performed by researcher.

**6- Tool reliability:** Tools of data collection were examined through assessing their internal consistency by cronbach alpha. Reliability of first tool (0.86) and reliability of second tool (0.78).

#### **Pilot study:**

A pilot study was carried out on 13nursing students who representing (10%) of the main study sample, they were selected randomly. The pilot study was served to assess the clarity of language, applicability and relevance of the tools, in addition to estimate the needed time for fulfilling data collection. The researcher asked the participants to fill in the questionnaire and to note any questions that were confusing or hard to answer. Subjects took around 45 minutes to fill the questionnaires. Data obtained from the pilot study was analyzed and no modifications were done to the

questionnaires. The study sample in the pilot was included in the main study sample.

#### **Field work:**

The fieldwork of the study started at the beginning of 2<sup>nd</sup> half of February and completed at the end of April 2021. The researcher arranged with head of the scientific department and nursing course coordinator for determining the suitable time to collect data. The researcher introduced herself to the students in the classroom then explain the aim and ways to fill in components of the questionnaire sheet. The researcher divided participants into groups to collect tool in their classroom or during break time. Data was collected for one day / week (day of theoretical study) around 12-15 sheets. The researcher checked each filled questionnaire sheet to ensure its completion.

#### **Administrative Design:**

Before starting the study, letters were issued from the Dean of Faculty of Nursing Ain Shams University to the head of each scientific department, the letter explained the aim of the study to facilitate data collection phase. The researcher explained the importance of the study and the implication of expected results for the study subjects.

#### **Results:**

**The main findings of this study were summarized as follows:**

**Table (1):** illustrates that more than two thirds (69.9%) of the study participants had age < 22 years old, majority (96.2%) of them were single, more than half (53.4%) had ≤3 brothers and majority (94.7%) of them were enrolled to the university after general secondary school.

**Table (2):** concludes that majority (95.5%) of the study participants had positive behavior regarding dominant interaction. While more than half of them had negative behavior regarding oppositional interaction.

**Figure (1)** illustrates that the majority (93.2%) of nursing students had positive behavior regarding teacher-student interaction.

**Table (3):** concludes that about one third (32.3%) of nursing students had moderate level of both skills and emotional engagement and more than four fifth (82.7%) of them had high level of performance engagement.

**Figure (2):** concludes that more than three fifth (62.8%) of them had high level of nursing administration course engagement.

**Table (4):** indicates that there were highly significant statistical positive correlations ( $p=0.00$ ) between total teacher-student interaction and all interaction domains among nursing students.

**Table (5):** indicates that there were highly significant statistical positive correlations ( $p=0.00$ ) between total nursing administration course engagement and all engagement dimensions among nursing students.

**Table (6):** indicates that there were highly significant statistical positive correlations between all teacher-student interaction domains and all nursing administration course engagement dimensions.

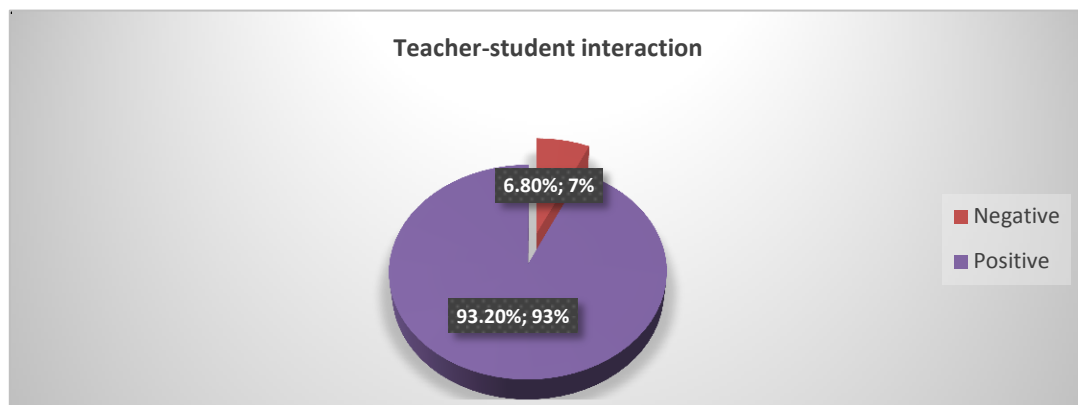
**Table (7):** indicates that there was highly significant statistical positive correlation ( $p= .000$ ) between total teacher-student interaction and total nursing administration course engagement among nursing students.

**Table (1):** Personal characteristics of nursing students (n=133).

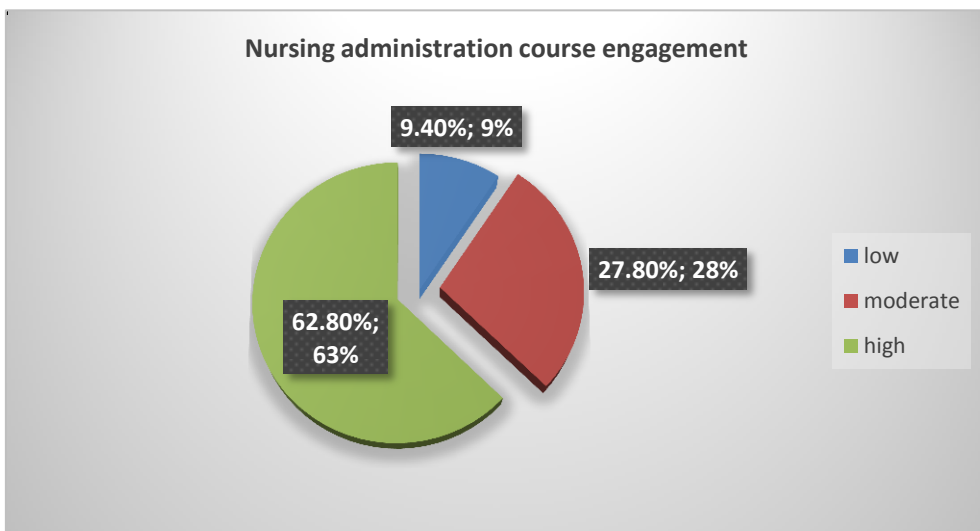
A- Personal characteristics	No.	%
<b>Age</b>		
<22 years	93	69.9
≥22 years	40	30.1
<b>Mean ± SD</b>	21.31± 1.22	
<b>Marital status</b>		
Single	128	96.2
Married	5	3.8
<b>Number of brothers</b>		
≤3	71	53.4
>3	62	46.6
<b>Pre-university education</b>		
General secondary school	126	94.7
Nursing institute	7	5.3

**Table (2):** Teacher student interaction domains among nursing students (n=133).

Teacher-student interaction domains	Negative		Positive	
	No.	%	No.	%
<b>Dominant</b>	9	6.8	127	95.5
<b>Cooperative</b>	7	5.3	126	94.7
<b>Submissive</b>	6	4.5	124	93.2
<b>Oppositional</b>	55	41.4	78	58.6
<b>Total student interaction</b>	9	6.8	124	93.2

**Figure (1):** Teacher- student interaction among nursing students (n=133).**Table (3):** Nursing administration course engagement dimensions' level among nursing students (n=133) .

Nursing administration engagement dimensions	Low		Moderate		High	
	No.	%	No.	%	No.	%
<b>Skills Engagement</b>	13	9.8	43	32.3	76	57.1
<b>Participation Engagement</b>	18	13.5	39	29.3	77	57.9
<b>Emotional Engagement</b>	19	14.3	43	32.3	71	53.4
<b>Performance Engagement</b>	0	0.0	23	17.3	110	82.7
<b>Total student engagement</b>	13	9.4	37	27.8	84	62.8



**Figure (2):** Nursing administration course engagement level among nursing students (n=133).

**Table (4):** Correlation matrix between teacher-student interaction domains with each other among nursing students.

Dimensions	Pearson Correlation	Dominant Interaction	Cooperative Interaction	Submissive Interaction	Oppositional Interaction
Cooperative Interaction	R	0.059			
	P	0.498			
Submissive Interaction	R	-.271**	.214*		
	P	0.002	0.013		
Oppositional Interaction	R	.515**	-.370**	-0.114	
	P	0.000	0.000	0.190	
Total interaction	R	.737**	.403**	.269**	.582**
	P	0.000	0.000	0.002	0.000

**Table (5):** Correlation matrix between nursing administration course engagement dimensions with each other among nursing students.

Dimensions	Pearson Correlation	Skills Engagement	Participation Engagement	Emotional Engagement	Performance Engagement
Participation Engagement	R	.320**			
	P	0.000			
Emotional Engagement	R	.199*	.284**		
	P	0.022	0.001		
Performance Engagement	R	.615**	.261**	0.153	
	P	0.000	0.002	0.079	
Total engagement	R	.832**	.651**	.588**	.666**
	P	0.000	0.000	0.000	0.000

**Table (6):** Correlation between teacher-student interaction domains and nursing administration course engagement dimensions among nursing students (n=133)

Dimensions	Pearson Correlation	Dominant Interaction	Cooperative Interaction	Submissive Interaction	Oppositional Interaction	Total interaction
Skills	R	.196*	.330**	.153	.128	.390**
Engagement	P	.024	.000	.078	.141	.000
Participation	R	.406**	.454**	.018	.099	.499**
Engagement	P	.000	.000	.838	.255	.000
Emotional	R	.176*	.055	.273**	.047	.248**
Engagement	P	.042	.529	.001	.588	.004
Performance	R	.174*	.337**	.001	.049	.284**
Engagement	P	.045	.000	.992	.576	.001

**Table (7):** Correlation between teacher-student interaction and nursing administration course engagement among nursing students (n=133)

Dimensions	Pearson Correlation	Total interaction
Total engagement	R	.516**
	P	.000

**Discussion:**

The interactions among teachers and students affect learning environments. Really, many studies have stressed instructor interaction with students as a noticeable factor to begin significant base and inspiration for the teaching and learning process and inspire students' motivation to take an active part in the learning environment to show instructor helpful and constructing a positive classroom environment to support student learning (Akhtar et al., 2019). Examining course engagement is an important factor for the instructors as this lead to students' satisfaction and positive learning outcomes. Hence, it is believed that course engagement should be assessed constantly (Hisham, Sailun, & Mohamed, 2021).

Therefore, the current study aims to assess teacher-student interaction and it's relation to nursing administration course engagement among nursing students through assessing teacher-student interaction level among nursing students, assessing nursing administration course engagement level among nursing students and finding out the relationship between teacher-student interaction and nursing administration course engagement among nursing students.

Related to teacher- student interaction among nursing students, the present study revealed that the lowest percentage of the study participants had negative behavior regarding

total interaction while the majority of them had positive behavior regarding total interaction. From researcher point of view, this might be because most of the nursing students know their rights and colleges are currently within the scope of the quality of education that the nursing students were more conscious, the majority of the participants were young aged students who had positive perception for all things around them that made them think positively.

Also, it might be due to the competency of academic staff that enhanced teachers' ability to build good relationships with students. This outcome matched with Ahmed, Eid, & Ahmed, (2021) who conducted study about "Nursing Students' Perception toward Teacher-Student Relationship and its Effect on their Academic Satisfaction" and illustrated that nearly three quarters of studied nursing students had positive behavior, while the lowest percentage of them had negative behavior among studied nursing students' toward teacher- student relationship.

Regarding nursing administration course engagement level among nursing students, the present study illustrated that more than three fifth of them had high level of nursing administration course engagement.

From the researcher point of view, this result might be because that the nursing students received continuous feedback from faculty staff, did class presentation, and worked with other

students on assignments or projects and so on; all of these issues lead to enhancement and maintenance of students' engagement with their college.

Conversely, this result disagreed with **Abdelhalim, Kamel, & Abd-ElRasoul, (2021)** who conducted study about "Effect of Interactive Learning environment on Nursing Students' Engagement and Academic Self-Concept" and showed that all of the studied nursing students had fair level of course engagement.

Concerning on nursing students' personal characteristics, the current study illustrated that more than two thirds of the studied participants had age < 22 years old. From the researcher point of view, this might be because most of student in faculty of nursing graduated from secondary school at the age of 18. This outcome matched with **Shrestha et al., (2019)** who conducted study about "Perception of the learning environment among the students in a nursing college in Eastern Nepal" and showed that more than two thirds of the studied participants had age <22 years old.

Related to marital status, the current study displayed that the majority of the studied nurses were single. From the researcher point of view, this might be because most of the nursing students who tended to achieve excellence in nursing career were female and they are single because nursing students don't prefer marriage during study.

This outcome supported by **Saad et al., (2021)** who conducted study about "Comparing undergraduate Nursing student academic engagement and achievement in traditional versus Blended Learning Models" and reported that majority of the studied nurses were single. Concerning on Number of brothers, the present study displayed that more than half of the studied student had three and less than 3 of brothers. This finding was in the same line with study by **Gouda, Abo Gad, & Ahmed, (2021)** who conducted study about "Students' Perception on Teacher-Student Relationship in Association to Their Academic Grades in University of Port Harcourt, Rivers State" and revealed that about half of the student had three brothers and less.

Concerning on pre-university education, the current study illustrated that the great majority of the studied nursing students enrolled to the university after general secondary school. From researcher point of view, this result might be because faculty of nursing accepts only 5.0% of graduate from Nursing Institute. This outcome supported by **Abdelhalim et al., (2021)** who conducted study about "Effect of Interactive Learning environment on Nursing Students' Engagement and Academic Self-Concept" and showed that majority of the studied nursing students enrolled to the university after general secondary school.

The present study indicated that there were highly significant statistical positive correlations between total teacher-student interaction and all interaction domains among nursing students, the result was in the same line with **Ahmed et al., (2021)** who conducted study about "Nursing Students' Perception toward Teacher-Student Relationship and its Effect on their Academic Satisfaction" and illustrated that there were highly significant statistical positive correlations between total teacher-student interaction and all interaction domains among nursing students.

The present study indicated that there were highly significant statistical positive correlations between total nursing administration course engagement and all engagement dimensions among nursing students. This finding agreed with **Sattar, Kouar, & Gillani, (2018)** who conducted study about "Exploring nursing students engagement in their learning environment" and displayed that there were highly significant statistical positive correlations between total nursing administration course engagement and all engagement dimensions among nursing students.

The present study indicated that there were highly significant statistical positive correlation between all teacher-student interaction domains and all nursing administration course engagement dimensions among nursing students. This outcome was in the same line with study by **Varga, (2017)** who conducted study about "The effect of teacher student relationship on the academic engagement of students" and proved that



through forming strong, caring and supportive relationships, educators contribute to students feeling safer and more secure in the educational setting, feeling more competent, making more positive connections and improving academic outcomes.

The current study indicated that there was highly significant statistical positive correlation between total teacher-student interaction and total nursing administration course engagement among nursing students. This outcome was congruent with study by **Nasir et al., (2020)** who conducted study about "Modifying the Student Course Engagement Questionnaire for Use with Online Courses" and showed that there was highly significant statistical positive correlation between total teacher-student interaction and total nursing administration course engagement among nursing students.

#### **Conclusion:**

In the light of the present study findings, it could be concluded that the majority of nursing students had positive behavior regarding teacher-student interaction. In addition, more than three fifth of nursing students had high level of nursing administration course engagement. There were significant statistical positive correlations between total teacher-student interaction and total nursing administration course engagement among nursing students.

#### **Recommendations:**

In the light of the present study findings, the following recommendations are suggested:

1. Enhancing academic guidance and counseling in order to follow students and early detection of any problem facing them and solve it.
2. Using various teacher-student communication channels.
3. Creating learning environment that encourages positive culture with healthy collaborations to motivate students to get optimal use their energies and desires.
4. Maintaining supportive relationships between students and their teachers in the form of communicating on a discussion board, group activities and team projects to

enhance learning, achievement and engagement in the course.

5. Offering students the opportunity to engage in classroom projects and lead discussions during class.

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