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## Roy's Adaptation Model in Reducing Academic Anxiety in Midwifery Students facing Midwifery Clinical Practice

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### ABSTRACT

Roy's adaptation model is designed to form an interrelated cycle consisting of input (stimulus), control process (coping mechanism), and output (response or behavior). The purpose of this study was to reduce academic anxiety in nursing students in facing midwifery clinical practice using Roy's model. The research design used a quasi experiment with a population of undergraduate nursing students with a sample size of 100 students. This study analyzed data using the T-test. From the demographic results, it was found that out of 100 respondents aged 20 years as many as 28 (28%), 58 (58%) men, 88 (54.2%) women. The results of data analysis using Shapiro Wilk obtained a probability value of  $0.710 > 0.05$  so it can be concluded that the data is normally distributed. The mean  $\pm$  SD value of the Academic Anxiety variable before the application of the Roy Adaptation Model is  $43.99 \pm 5$ . The mean  $\pm$  SD value of the Academic Anxiety variable after the application of the Roy Adaptation Model is  $45.59 \pm 5.888$ . The results of the Paired Sample Statistics T-Test test obtained a value of 4.222 and a p value = 0.001 < 0.05, thus the alternative hypothesis is accepted. For future researchers, it is expected to use stronger experimental designs such as randomized controlled experiments, conduct long-term measurements, analyze more complex data, include additional variables such as moderation or mediation and develop academic anxiety instruments.

Keywords: Academic anxiety; Reproduction health; Health believe model

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#### *Article history :*

*Received: 4 Agustus 2024*

*Received in revised form: 16 September 2024*

*Accepted: 23 Oktober 2024*

*Available online: 15 Desember 2024*



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## INTRODUCTION

Anxiety is a condition experienced by almost every individual.<sup>1</sup> Undergraduate midwifery students who are still in the stage of nurse education will feel a high level of anxiety before entering the hospital as a practice site.<sup>2</sup> They are faced with different role conditions, namely as students and health workers who must be responsible for patients.<sup>3</sup> According to Cassady, academic anxiety is a broad general construct that focuses on the preclinical anxiety experienced by learners in various educational contexts, namely the experience of negative affective responses in the presence of perceived academic stressors.<sup>4</sup> A similar research report stated that common sources of stress in students include facing the death of patients, lack of confidence during practice, fear of making mistakes, use of medical equipment, fear when communicating with patients, fear of supervisors or other health workers.<sup>5</sup> Students experience clinical stress for reasons such as insufficient knowledge and skills for practice, fear of hurting patients and making mistakes, lack of clear expectations from their instructors, unknown environment, not trusting their knowledge and skills, thoughts such as facing negative reactions, and low self-confidence.

Undergraduate midwifery students are one of the groups of students who are not free from anxiety.<sup>6</sup> The American Psychological Association states that anxiety is a feeling that usually arises with tension and worry so that it can affect physically such as increased blood pressure, sweating, trembling, dizziness and increased heart rate.<sup>7</sup> The nursing profession is always faced with stressful situations<sup>8</sup>. The selection of appropriate nursing actions in emergency situations will affect the psychological condition of nurses.

The phenomenon of academic anxiety in undergraduate midwifery students in facing clinical practice often occurs which causes disruption in the understanding process of several midwifery competencies in each department. Some reports state that midwifery practice is more stressful than academic practice on campus. Lack of skills and knowledge of the practical environment in the hospital triggers the emergence of stress in students. Some studies state that common sources of anxiety in students include facing the death of patients, lack of confidence during practice, fear of making mistakes, use of medical equipment, fear when communicating with patients, fear of supervisors or other health workers.<sup>5</sup> The more academic and social problems are not resolved, the more he becomes addicted to relieving his emotional pain this makes his self-esteem towards school activities even lower.<sup>9</sup> If this condition continues in the long term, it will hinder students' academic achievement, social development, and developmental tasks.<sup>10</sup>

According to World Health Organization, depression and anxiety are the most common mental disorders, which ranked first and second for three decades (1990-2017), with approximately 3.6% of the

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world's population suffering from anxiety.<sup>11</sup> Basic health research in 2018 shows that the prevalence of emotional disorders in the age of 15 years and above in Indonesia is 9.8%, while the prevalence in the age group of 15-24 years old range is 10% due to employment status as students.<sup>12</sup> In several studies abroad, it was found that 39.9-53.8% of midwifery students experienced mild to severe anxiety.<sup>13</sup>

The approach that can be used in the form of nursing theory confirms that MAR is described as the mother of psychiatric nursing because her theoretical and clinical work leads to the development of different specialized fields, especially psychiatric midwifery.<sup>14</sup> Alligood explained that Roy's work was influenced by Freud, Maslow and Sullivan's theories of interpersonal relationships as well as contemporary psychoanalytic models.<sup>15</sup> Roy's adaptation model is designed to form an interrelated cycle consisting of input (stimulus), control process (coping mechanism), and output (response or behavior).<sup>16</sup>

Researchers conducted a preliminary study at STIKES Mojokerto city through a Google form submitted to nursing students through the academic supervisor teacher. The scale used to measure academic anxiety is the *Cognitive Test Anxiety Scale (CTAS)* developed by Cassady.<sup>4</sup> This questionnaire has gone through a Confirmatory Factor Analysis (CFA) test of 24 items with 3 dimensions including cognitive aspects, emotional aspects and physical aspects. preliminary studies were conducted by researchers to find out the phenomenon of academic anxiety of midwifery students in facing clinical practice. and the results were obtained the results showed that 22% of students experienced moderate academic anxiety, 5% mild academic anxiety, and 78% severe academic anxiety. For anxiety analysis based on aspects of academic anxiety, 65% cognitive aspects, 27% emotional aspects and 8% physical aspects were obtained. Focus Group Discussion (FGD) involving 20 undergraduate nursing students in Mojokerto city obtained the results of the level of anxiety felt by midwifery students that academic anxiety students often experience is anxiety during PKK. On the schedule of PKK implementation, students lack confidence in providing nursing services, fear of providing invasive actions, fear of dealing with patients where wrong actions will always be conveyed on social media, students are afraid of Clinical Instructure (CI), feel anxious about the bedside teaching clinical exam as well as the hospital environment or clinic places that are usually associated with scary events.

Of these things can have a negative impact on individuals such as lack of self-confidence, anxiety, withdrawal from the environment and social life, which can lead to personality disorders, decreased cognitive performance, feelings of helplessness can even lead to suicidal behavior and feelings of loneliness caused by a person's disturbed psychological well-being. The purpose of this study was to reduce academic anxiety in nursing students in facing nursing clinical practice using Roy's model. Urgency in this study in recent years the level of academic anxiety among undergraduate nursing

students has continued to increase, especially with the burden of academic tasks felt by students, if not treated immediately it will lead to more serious anxiety disorders such as depression, burnout, procrastination and eventually student dropout. with the phenomenon and urgency in research, the author is interested in conducting research with the title Application Of The Roy Adaptation Model In Reducing Academic Anxiety In Midwifery Students Undergoing Nursing Clinical Practice.

### **METHOD**

The research design used to quasi-experiment, quasi-experiment according is a research method used to find an effect of certain treatments on others in controlled conditions. In this study to see the effect of Roy's adaptation model on academic anxiety of midwifery students by means of pre and post assessments. The population in this study were all midwifery students in Mojokerto city. The sample in this study were all midwifery students in the city of Mojokerto. The sample size in this study was 100 students. The technique in sampling using Purposive Sampling. as for the inclusion criteria: Regular undergraduate midwifery students in 2020, 2021, 2022 and 2023, actively registered in PDDikti, Data Analysis: 1). Univariate analysis: to get an overview of the distribution and frequency of the Effect of the Roy Adaptation Model on Academic anxiety of midwifery Students in Mojokerto City, 2). Bivariate analysis: to see the effect of the Roy Adaptation Model on Academic anxiety of midwifery Students in Mojokerto City, it is said that there is no effect if  $p > \alpha = 0.05$  and it is said that there is an effect if  $p < \alpha = 0.05$ . Also include information about population and sample, data source and how you collect the data. Variable included, the analysis clearly.

**RESULTS**

**1. Univariate Analysis**

Table 1. Frequency Distribution of Respondents Based on Characteristics of midwifery students

Caracteristic of responden	Frequency (n)	Percent (%)
Age:		
17 years	12	10.0
18 years	25	25.0
19 years	25	25.0
20 years	28	28.0
Gender:		
Women	100	100
year of entry		
2020	35	35.0
2021	38	38.0
2022	12	12.0
2023	15	15.0

Based on table 1, it can be concluded that out of 100 respondents in Mojokerto city midwifery, most of the respondents were 20 years old as many as 28 (28%) respondents. The characteristics of respondents were mostly male as many as 58 (58%) respondents while respondents with female gender were 88 (54.2%). The generation of most respondents is the 2021 generation, namely 38 (38%)

**2. Bivariate Analysis**

Table 2, The Influence Of The Roy Adaptation Model On Academic Anxiety Of Students In midwifery Clinical Practice

Academic Anxiety	Mean	SD	t	P
Before	43,99	5,192	-4,222	0,000
After	45,59	5,888		

Based on table 2, the mean ± SD value of the Academic Anxiety variable before the application of the Roy Adaptation Model is 43.99 ± 5.192, while after the application of the Roy Adaptation Model is 45.59 ± 5.888. The results of the Paired Sample Statistics T-Test test obtained a value of 4.222 and a p value of = 0.000 < = 0.05, thus the alternative hypothesis is accepted. Based on the research that has been done, it shows that there is an effect of the Roy Adaptation Model on Academic Anxiety of midwifery Students in Mojokerto city. This is due to an increase in the average Academic Anxiety score before and after the Roy Adaptation Model of 1.600, where the average Academic Anxiety score before the Roy Adaptation Model is 43.99, while the average score after the Roy Adaptation Model is 45.59.

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## DISCUSSION

The physiological mode of RAM is concerned with a person's entire body, including cells, tissues, and organs and their basic needs and functions, such as oxygenation. As applied to nursing students, this mode requires midwifery schools to prioritize keeping students physically safe, even under pandemic conditions.<sup>17</sup> The application of the Roy Adaptation Model concept provides several approaches to provide students with clinical interactions with patients as an essential component of psychiatric midwifery.<sup>18</sup> In addition, students should be provided with the necessary personal protective equipment to meet applicable health guidelines when conducting clinical experiences. Research results of midwifery students' initial clinical practice experience in psychiatric midwifery. Cha et al reported that these students first experienced emotional turmoil and fatigue, partly due to inexperience and lack of adequate skills to meet patient needs.<sup>19</sup> Research suggests that simulation experiences should integrate three phases: simulation preparation or pre-briefing, the simulation experience, and a debriefing session after the simulation is completed.<sup>20</sup> In an analysis of the concept of prebriefing in healthcare simulation. Brennen describes various aspects of prebriefing. Before providing prebriefing, facilitators should consider the learning needs of the students, the purpose of the simulation and the learning objectives, and how these objectives will be measured.<sup>21</sup>

In this study, it was found that most of the ages of undergraduate midwifery students were 20 years old and the gender of undergraduate students was mostly male. Research Lindasari et al said academic anxiety in undergraduate midwifery students is influenced by age and gender at the age of 18-22 years where at that age it is included in the early adult stage.<sup>22</sup> The early adult development stage is task-oriented and tries to control personal feelings in order to do the task well.<sup>6</sup> In accordance with Sari research this gender is due to the fact that currently in the world of midwifery has begun to open up to the existence of men and is no longer a profession that is synonymous with women.<sup>23</sup> In some workplace areas, for example in emergency rooms, operating rooms, companies, mining, and aviation, men are needed more because of their physical abilities compared to women and in terms of emotional regulation.<sup>23</sup> This emotional increase is a result of physical changes, especially hormones that occur during adolescence.<sup>24</sup> Teenagers have unstable emotions, have entered a wider social world where the influence of friends and the social environment will greatly determine the level of anxiety experienced by students.<sup>24</sup>

Academic Anxiety According to Cassady, academic anxiety is a broad general construct that focuses on the preclinical anxiety experienced by learners in various educational contexts, namely the experience of negative affective responses in the presence of perceived academic stressors.<sup>4</sup> Academic Anxiety can be a common condition seen in people of all age groups. Test anxiety and its various

manifestations have become one of the most common research topics in recent years. There are many external factors that will contribute to anxiety<sup>25</sup>. At a practical level, the identification of academic anxiety as an umbrella construct that is hierarchically superior to the various dimensions of situational anxiety in educational contexts supports the development and implementation of intervention efforts that students, parents, and educators can undertake to support learners across a wider range of experiences<sup>26</sup>.

## CONCLUSION

Based on the results of the study, it was found that there was an effect of the Roy Adaptation Model on Academic Anxiety, undergraduate midwifery students in Mojokerto city because respondents who received the Roy Adaptation Model intervention were more likely to experience a decrease in Academic Anxiety after the intervention. So it can be concluded that as a student must be able to adopt the concept of Roy's Adaptation theory in order to decrease Academic Anxiety as it is known, the lecture process is a physical, psychological, and intellectual activity that is quite heavy and full of anxiety if you are unable to develop adaptation skills, problems will arise that reduce the level of Academic Anxiety decline.

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