Cultivating Resilience: A Key to Managing Academic Stress among Health Students in Online Learning

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Abstract

Academic stress refers to the pressure a person faces when dealing with academic demands. It is characterized by a variety of reactions, including physical, emotional, cognitive, and behavioral responses. The aim of this research is to empirically test the extent to which resilience contributes to academic stress among health students taking online learning at “X” University in the Bangka Belitung Islands during the New Normal period. The method used in this research is a quantitative approach with simple linear regression analysis. The sample for this study consisted of 143 health students at “X” University in the Bangka Belitung Islands, selected using cluster random sampling. Data was collected using a scale that measures the level of academic stress and the level of student resilience. The research results show that resilience plays a negative role in students' academic stress during online learning in the new normal period. The higher the level of resilience a student has, the lower their academic stress will be. Resilience accounts for 45.2% of the variance in academic stress, while the remaining 54.8% is influenced by other variables. These findings have important implications, showing that students need to enhance their resilience in order to reduce academic stress levels. In the context of online learning during the New Normal period, resilience can be a factor that helps students successfully cope with the academic pressure they face. Further research and holistic approaches to student well-being should also be considered to support increased resilience and reduced academic stress.

Keywords: academic stress, health, online learning, resilience, student

Abstrak


Kata kunci: stres akademik, kesehatan, pembelajaran online, resiliensi, mahasiswa

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in tertiary institutions has transformed into online learning through the use of remote information technology platforms such as zoom meetings and Google Meet [3].

Some of the challenges and obstacles that arose during these online learning activities, such as interrupted internet connection, insufficient internet pocket money, homework, and piles of coursework, so that students felt online learning was more difficult than face-to-face learning. In the online learning process, students often experience academic stress. The prevalence of academic stress has witnessed an increase, particularly in the context of the Covid-19 pandemic, which has brought about several challenges such as the implementation of social distancing measures, the prolonged adoption of online learning, and a lack of social support [4].

In the context of the COVID-19 pandemic, isolation policies have caused significant changes in students' learning patterns and academic environment. Students must adapt to distance learning, changes in teaching methods, and technical challenges that may arise in accessing academic resources [5]. The academic stress level is in the moderate category (39.8%). The most common cause of academic stress is not being able to carry out laboratory practices due to the unavailability of equipment at home (81.4%), and the most impact of academic stress is difficulty concentrating (90.5%) [6]. The factor that causes the most academic stress is not being able to carry out laboratory practices due to the unavailability of equipment at home. The level of academic stress experienced by the majority of students is in the moderate category. The most common impact of academic stress is difficulty concentrating. Meanwhile, the results of other studies showed that students experienced the most academic stress in the medium category, namely 80 students (39.2%). There were 55 people (27%) in the high category of academic stress, 48 people (21%) in the low category, 14 people (6.9%) in the very high category, and 11 people (5.4%) in the very low category. This means that students feel quite heavy pressure while carrying out online learning during the Covid 19 pandemic [7]. In fact, other findings show that psychosis occurs in a teenage girl after academic stress due to the inability to continue her education through online classes [8].

One solution to reduce the level of student academic stress is to increase student resilience. Increased resilience is a positive response to stress caused by neuronal molecular and structural [9]. There is a significant inverse relationship between the level of psychological resilience and life stress [10]. Resilience can be identified as the most important moderator of academic stress [11]. Resilience mechanisms can reduce the negative impact of fatigue [12]. Resilience allows students to overcome adversity [13]. Resilience is also useful as a stress management intervention and stress prevention for students [14]. Resilience is an individual's capacity to rise from adversity, conflict, confusion, and failure and the ability to make positive changes [15]. Research related to resilience can have an impact on the development of advances in the field of psychiatric nursing, especially in overcoming student boredom related to social support, self-efficacy, and academic stress [16]. The problem of student academic stress can be reduced by increasing student resilience. However, it is not yet known to what extent the role of resilience plays a role in student academic stress in online learning during the New Normal Era at “X” University in Bangka Belitung Islands.

Based on the background above, the problem that will be examined in this study is to analyze the role of resilience to student academic stress in online learning during the New Normal Era at “X” University in Bangka Belitung Islands. This study aims to find out how empirically the role of resilience plays a role in student academic stress during online learning at “X” University in Bangka Belitung Islands. The proposed research hypothesis is that there is a role for student resilience in student academic stress during online learning.

2. Research Method
2.1. Research Participants

The research population is all “X” University in Bangka Belitung Islands students. The sampling technique used in this research is cluster random sampling technique. Cluster random sampling is used when the population does not consist of individuals, but consists of groups of individuals or clusters [17]. In this research, 143 students comprised the sample.

2.2. Research Instruments

The data collection technique uses instruments in the form of an academic stress scale and a resilience scale that has been tested for validity (r > 0.3) and reliability (Cronbach’s Alpha > 0.7) [18]. Academic stress as an independent variable was measured using a scale adaptation [19]. The scale adaptation process was carried out based on the scale adaptation process proposed translating, synthesising, reviewing and piloting the scale [20]. Scale translation activities into Indonesian were carried out to suit the language used by the respondents. After that, the scale goes through an expert judgment process with two academics or practitioners who are competent in the field of psychology, so that the validity of the content is tested. Two examples of academic stress scale items are: “I worry a lot about everything and everyone”, and “I have a tendency to procrastinate (put things off that have to be done)”. After testing the scale, the academic stress scale has a reliability of 0.940 and has a validity test value of more than 0.3. There are no dropped items on the academic stress scale after the trial, so the final number is still 35.

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The resilience variable is measured using a resilience scale that was compiled based on an adaptation [21]. The resilience scale is also processed in the same way as the academic stress scale adaptation process. Two examples of resilience scale items are: “I am able to adapt to change”, and “I have close and secure relationships”. After testing the scale, the resilience scale has a reliability of 0.912 and has a validity test value of more than 0.3. There were no dropped items on the resilience scale after the trial, so the final number remained 25.

2.3. Research Procedure
This research uses quantitative methods. Quantitative research is used because the research data is processed in the form of numbers and analyzed statistically [22]. Descriptive analysis is statistics that are used to analyze data by describing or describing the data that has been collected as it is without intending to make general conclusions or generalizations [17]. The data collection method in this study was carried out using a scale. The scale has special characteristics that distinguish it from other forms of data collection tools, namely its stimulation in the form of questions or statements which do not directly reveal the attributes to be measured, but reveal behavioral indicators of the attributes in question, so that the answers given will depend on the subject's interpretation and projective [23]. The research procedure has been carried out in three stages, namely preparation, data collection and data analysis. Research preparation was carried out by designing a research design, while the data collection process was carried out by carrying out research scale trials and research data collection. Finally, the analysis was carried out using statistical analysis using the SPSS 24.0 application for windows evaluation version.

2.4. Data analysis
The data analysis technique used to test how far resilience plays a role in academic stress is simple linear regression analysis using the SPSS 24.0 application for windows evaluation version. Before conducting data analysis, validity and reliability tests of the research scale were carried out first. Validity test is carried out to see how far a measuring instrument can perform its measurement function properly by looking at content validity. Content validity is done by rational analysis of the test content. Furthermore, the reliability test and item function alignment test were carried out in the research scale trial process. The item function alignment test in this study is expressed by the total item correlation coefficient with a minimum limit of >0.30. This is in accordance with the decision that the validity coefficient can be considered satisfactory if \( r > 0.30 \). The higher the correlation coefficient approaching 1.00, the better [18]. This means that all statements that have a correlation with a scale score of less than 0.30 can be set aside and statements that are included in the scale are taken from items that have a correlation of 0.30 and above.

3. Result and Discussion

3.1. Result
The results of the descriptive analysis show the categorization of research subjects for each variable as shown in Table 1.

<table>
<thead>
<tr>
<th>Category</th>
<th>Resilience Frequency</th>
<th>Academic Stress Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>84</td>
<td>58.7</td>
</tr>
<tr>
<td>Middle</td>
<td>48</td>
<td>33.6</td>
</tr>
<tr>
<td>Low</td>
<td>11</td>
<td>7.7</td>
</tr>
<tr>
<td>Total</td>
<td>143</td>
<td>100</td>
</tr>
</tbody>
</table>

Based on Table 1 it is known that there are 84 or 58.7% of students in the high category, 48 or 33.6% of students in the medium category and 11 or 7.7% of students in the low category. Then in the description of academic stress data it can be seen that there are 36 or 25.2% of students in the high category, 68 or 47.6% of students in the medium category and 39 or 27.2% of students in the low category.

Furthermore, to test the research hypothesis, an assumption test will be carried out first, namely the normality test and linearity test. The results of the normality test can be seen in Table 2.

<table>
<thead>
<tr>
<th>Test Statistic</th>
<th>Resilience (X)</th>
<th>Academic Stress (Y)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>0.200 ( d )</td>
<td>0.200 ( d )</td>
</tr>
</tbody>
</table>

The normality test was carried out using the Kolmogorov-Smirnov test with the results of the resilience variable with a significance value of Asymp.Sig (2-tailed) of 0.200 greater than 0.05 and the academic stress variable with a significance value of Asymp.Sig (2-tailed) of 0.200 greater than 0.05. Based on these results, according to the basis for decision making in the Kolmogorov-Smirnov normality test, it can be concluded that the data is normally distributed. The results of the linearity test can be seen in the Table 3.

<table>
<thead>
<tr>
<th>Variabel</th>
<th>F</th>
<th>p</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Stress (Y) * from resilience (X)</td>
<td>1.020</td>
<td>0.458</td>
<td>Linear</td>
</tr>
</tbody>
</table>

The results of the linearity test as in Table 3 above can be seen that the value of Deviation from Linearity Sig. is 0.458 greater than 0.05. So it can be concluded that there is a significant linear relationship between the resilience variable (X) and the academic stress variable (Y). Furthermore, the calculated F value is 1.020 <F table 1.510. Because the calculated F value is smaller than the F table value, it can be concluded that there is a significant linear relationship between the resilience variable (X) and the academic stress variable (Y).
After the normality test and linearity test, then a hypothesis test will be carried out. The hypothesis testing in this study was carried out by simple linear regression analysis using the SPSS 24.0 application for windows evaluation version. The results of the hypothesis test can be seen in Table 4.

Table 4. Results of Simple Linear Regression Analysis

<table>
<thead>
<tr>
<th>Variable</th>
<th>R</th>
<th>R Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resilience * academic stress</td>
<td>.672</td>
<td>.452</td>
<td>107.035</td>
<td>.000</td>
</tr>
</tbody>
</table>

Based on the calculation results in table 4 above, it is known that the research hypothesis is accepted with a score of F = 107.035 at a significance level of p <0.05. Besides that, table 4 above also shows that the R square value is 0.452. This value means that resilience contributes to academic stress with an effective contribution of 45.2%. Meanwhile 54.8% is influenced by other unknown variables. This indicates that the research hypothesis is accepted, namely resilience has a significant role in academic stress. It can also be said that resilience is a predictor of student academic stress in the new normal era. Test result can be seen in the Table 5.

Table 5. Test Results t

<table>
<thead>
<tr>
<th>Model</th>
<th>Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Unstandardized</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>129.252</td>
<td>4.654</td>
<td>27.772</td>
</tr>
<tr>
<td></td>
<td>Resilience</td>
<td>-.717</td>
<td>.067</td>
<td>-10.784</td>
</tr>
</tbody>
</table>

Based on table 5 above, it is known that the resilience variable for academic stress is negative. This can be seen in the table above which shows a B value of -0.717 with a significance level of p<0.05 which indicates that resilience has a significant negative role on academic stress. This means that the higher the resilience of students, the lower the level of academic stress.

3.2. Discussion

The results showed that resilience has a negative role on academic stress in students during online learning at "X" University in Bangka Belitung Islands. This indicates that the higher the level of resilience possessed by students, the lower the level of academic stress they experience in the context of online learning. In other words, resilience has an impact on reducing the level of academic stress in students, which can implicitly help them overcome challenges and pressures that may arise during the online learning process. These findings underscore the importance of understanding the role of resilience in supporting students' mental wellbeing and emphasise the need for approaches that promote and enhance students' resilience levels as part of strategies to manage academic stress during online learning situations.

The results also show that previous research on the role of resilience to academic stress has important relevance in the context of online learning, particularly in the lecture process. The implication of these findings is that previous studies can provide valuable insights in efforts to improve the effectiveness of online learning, emphasizing the importance of understanding the role of resilience in managing academic stress in order to achieve optimal learning outcomes.

These results are in line with the findings from previous studies that have investigated the relationship between resilience levels and academic stress. These previous studies confirmed that there is a significant and negative relationship between individual resilience levels and perceived academic stress levels. That is, the higher the level of resilience possessed by students, the lower the level of academic stress they experience during the learning process [24]. The findings suggest that resilience plays an important role in reducing academic stress levels, allowing students to better cope with academic demands. Furthermore, these results confirm the importance of understanding the concept of resilience in the context of higher education, especially in online learning situations such as those that occur during the New Normal. The implication is that developing students' resilience can be an effective strategy to reduce academic stress levels, which in turn can improve the quality of their learning.

This study is also in accordance with previous research which shows that the higher the level of resilience possessed by students, the lower the level of academic stress they experience. This result illustrates that resilience, which reflects a person's ability to cope with pressures and challenges, can act as a protective factor against academic stress. The relationship coefficient found of -0.605 indicates that this relationship is quite strong and in the opposite direction, meaning that the higher the level of resilience, the lower the level of academic stress felt by students [25]. Approaches that aim to increase students' resilience can be an effective strategy to reduce their academic stress levels, which in turn can improve the quality of student learning.

Other research shows that resilience negatively predicts factors and symptoms of academic stress [26]. The results of these findings are also in line with other research which shows that there is a negative relationship between academic stress and resilience in students who are completing their final project at University X, West Jakarta [27]. The higher the academic stress, the lower the resilience of students who are completing their final project and vice versa if low academic stress students complete the final project.

Resilience exerts a protective influence with academic stress and anxiety [28]. Resilience also has a significant mediating effect on the relationship...
between academic stress and school [29]. Resilience may also mediate the predictive effects of academic stress on depressive symptoms among students [30]. The mediating effects of resilience can be positively related to quality of life and reduce the effects of academic stress on quality of life [31].

The results of this study also show that the effective contribution of resilience to academic stress is 45.2%. Meanwhile, 54.8% is influenced by other unknown variables. This result can be a foundation for future research development related to reducing academic stress in students during online learning. Some variables related to academic stress besides resilience are hardiness and social support which can affect the academic stress of Diploma IV Midwifery students [32]. In contrast to these results, other research on academic stress shows that self-efficacy and self-regulation have an influence on student academic stress [33].

4. Conclusion

Based on the findings of this study, it is known that there is a significant and inversely proportional relationship between resilience and academic stress in health students who participate in online learning in the new normal era. As the resilience level of health students increased, their academic stress level decreased significantly, which signalled the important role of resilience in ameliorating academic stress. The data revealed that resilience accounted for 45.2% effective contribution to academic stress, and the remaining 54.8% was influenced by other variables. These results emphasise the need for health students to enhance resilience, so as to reduce academic stress and facilitate a more optimal learning experience. Methodologically, future research can use a wider sample such as all students in one region in order to better describe the situation in Indonesia and to provide better generalisation. Future research can also analyse other factors that may play a role in reducing academic stress, such as hardiness, social support, self-efficacy, and self-regulation. With a deeper understanding of these factors, a holistic approach in improving students’ well-being during online learning can be developed, so that students can achieve optimal learning outcomes. Furthermore, practical advice that can be given to students is to maintain and even improve their resilience.

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References

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