

Perceived Barriers to Academic Success Among University Students: A Cross-Sectional Study

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ABSTRACT

University students must overcome numerous obstacles that greatly challenge their academic success. Understanding the factors and triggers of barriers to academic success is essential for enhancing the academic achievement and well-being of university students. A cross-sectional study was conducted to identify the most common types of barriers and assess their severity among university students. Data were collected through an online questionnaire provided to 320 university students in Malaysia. The response was analyzed using descriptive statistics, and this study also used Likert scale items that measure the severity of various obstacles to academic success. This study reveals that personal and academic barriers, including a lack of motivation, mental health challenges, difficulty understanding course materials, and a heavy workload, are among the most commonly reported challenges. On the other hand, financial barriers and institutional barriers present minor to moderate challenges for students. Therefore, understanding the obstacles that these students face can guide educators and policymakers to plan a more conducive learning environment for student success.

Keywords: Academic success, Academic barriers, Personal barriers, Financial barriers, Institutional barriers

INTRODUCTION

Personal, socio-environmental, and institutional factors shape a student's academic success beyond classroom instruction. University students often face a variety of barriers, including mental health challenges, time constraints, financial stress, inadequate academic support, and suboptimal learning environments, which can impact their academic performance and success [1, 2]. Despite the current worldwide enrolment rate in higher education, many institutions report high dropout rates and academic failure statistics, indicating that a considerable number of students continue to face numerous impediments to academic performance [3]. Understanding these barriers is important because they can affect not only students' grades and performance but also their long-term well-being.

Research consistently shows that personal barriers, particularly lack of self-motivation, mental health concerns, and poor sleep quality, are closely associated with poor academic outcomes among university students. According to studies conducted by [4, 5], there was an increase in student anxiety, depression, and distress in the undergraduate population and a consistent negative correlation between these conditions and academic performance. These findings suggest that personal barriers are often not adequately addressed despite clear academic consequences. Academic barriers, including difficulty understanding course material, excessive workload, and the quality of feedback from instructors, are often cited as hindrances to learning. Research on the quality of feedback to instructors has shown that students' perceptions of the usefulness of feedback to instructors predict engagement and performance, with poor and delayed feedback reporting detrimental effects on learning and motivation [6, 7]. Difficulty understanding course material for university students, particularly those in Science, Technology, Engineering, and Mathematics (STEM), has been linked to stressful course conditions and excessive cognitive load [8]. However, many studies have focused on course or faculty-level interventions, limiting generalizability across disciplines and types of institutions [9].

Apart from personal and academic barriers, financial stress emerges as a significant obstacle to academic success. Research indicates that high tuition costs, inadequate financial resources for sustenance, and the

necessity of part-time employment during studies exacerbate psychological stress, resulting in diminished academic performance among students [10, 11]. This study was conducted during the COVID-19 pandemic, a time marked by sudden economic shocks that resulted in loss of income and employment. These challenges have created financial stress for students, contributing to declines in mental health and subsequent academic difficulties. In addition, the cost of purchasing textbooks is particularly high, especially for those sourced from the UK and the US. This financial burden has led students to delay buying essential books. Furthermore, while sharing or borrowing books from senior students may provide some relief, it can still pose challenges that hinder students' academic success [12]. The last barrier pertains to institutional challenges such as a lack of access to technology, insufficient guidance, and constraints on career support services, which contribute to the need for students to navigate academic requirements. Empirical analyses of student advising and support have suggested a positive association between proactive advising models and academic persistence; nevertheless, the methodological weaknesses of the database hinder its reliability for students [13, 14]. Student advising and support are crucial for achieving academic success and fostering career development after graduation.

Despite extensive research on barriers, an integrated understanding of how personal, academic, financial, and institutional factors interact to influence university student academic success remains limited. These limitations and knowledge gaps impede the holistic development of targeted interventions to support students' academic achievement. Thus, the purpose of this study was to identify the most common types of barriers and assess their severity, particularly for personal, academic, financial, and institutional barriers. By clarifying the relative influence of different types of barriers on academic success, the study findings can guide university administrators and policymakers in prioritizing resource allocation and designing diverse support initiatives for student success.

MATERIALS AND METHODS

Study design

A descriptive cross-sectional study using a convenience sampling method was conducted among students of UiTM Perak Branch, Tapah Campus, Malaysia. A total of 320 students participated in the questionnaire, which was distributed online through WhatsApp and Telegram Messenger platforms. All participants provided informed consent and completed the online survey in approximately five minutes.

Research instrument

The questionnaire was designed to capture the main information related to the study. It includes two sections: Section A, which focuses on the demographic profile (3 questions), and Section B, which assesses perceived severity of personal, academic, financial, and institutional barriers that impact academic success (12 questions). In Section B, the instruments were evaluated on a 5-point scale ranging from “1-Not a barrier” to “5-Very severe barrier”.

Statistical analysis

Data were obtained and analyzed using the Statistical Package for the Social Sciences (SPSS) version 26.0 [15]. Descriptive statistics, which include frequencies and percentages, were used to generate the frequency tables. In addition, Cronbach's alpha coefficient was used to calculate the internal consistency or reliability of a set of items in each factor obtained. The criterion for the best interpretation of Cronbach's alpha coefficient is a value above 0.7 [16]. Table 1 shows that Cronbach's alpha reliability test for items in each construct is above 0.7. Therefore, all items used to measure perceptions of the severity of personal, academic, financial, and institutional barriers that impact academic success were adequate and reliable.

Table 1. Cronbach Alpha

| Barriers | Cronbach's alpha | No. of Items |
|----------|------------------|--------------|
| Personal | 0.81 | 3 |
| Academic | 0.78 | 3 |

| | | |
|---------------|------|---|
| Financial | 0.76 | 3 |
| Institutional | 0.75 | 3 |

RESULTS AND DISCUSSIONS

Socio-demographic data

Table 2 summarizes the socio-demographic profiles of the 320 respondents. This study consists of 168 female students (52.5%) and 152 male students (47.5%), reflecting a slight female predominance. Concerning the age of the respondents, the majority (83.8%) are 18 – 20 years old, indicating that the respondents consist of younger or early-semester university students. In terms of academic performance, over 61% of students reported a Cumulative Grade Point Average (CGPA) between 3.50 and 4.00, while only 1.3% scored below 2.50, indicating a generally high-achieving student.

Table 2. Socio-demographic profile of the respondents

| Characteristic | Percentage (%) | Frequency |
|----------------|----------------|-----------|
| Gender | | |
| Male | 152 | 47.5 |
| Female | 168 | 52.5 |
| Age | | |
| 18 - 20 | 268 | 83.8 |
| 21 - 23 | 36 | 11.2 |
| Above 24 | 16 | 5.0 |
| CGPA | | |
| Less than 2.50 | 4 | 1.3 |
| 2.50 - 3.00 | 32 | 10.0 |
| 3.00 - 3.50 | 88 | 27.5 |
| 3.50 - 4.00 | 196 | 61.2 |

Table 3 shows the severity of personal, academic, financial, and institutional barriers that affect the academic success of university students. The severity level was evaluated on a 5-point scale ranging from “1-Not a barrier” to “5-Very severe barrier”.

Table 3. Perceived severity of personal, academic, financial, and institutional barriers that affect academic success among university students.

| Barriers | Descriptions | Not a barrier | Minor barrier | Moderate barrier | Major barrier | Very severe barrier |
|-----------------|-------------------------|---------------|---------------|------------------|---------------|---------------------|
| | | n (%) | n (%) | n (%) | n (%) | n (%) |
| Personal | Lack of motivation | 36 (11.2) | 32 (10) | 140 (43.8) | 80 (25) | 32 (10) |
| | Mental health challenge | 48 (15) | 72 (22.5) | 72 (22.5) | 84 (26.2) | 44 (13.8) |

| | | | | | | |
|----------------------|---|-----------|-----------|------------|------------|-----------|
| | Lack of sleep | 24 (7.5) | 56 (17.5) | 96 (30) | 112 (35) | 32 (10) |
| Academic | Difficulty understanding the course materials | 28 (8.8) | 40 (12.5) | 128 (40) | 100 (31.2) | 24 (7.5) |
| | Heavy workload | 16 (5) | 40 (12.5) | 100 (31.2) | 124 (38.8) | 40 (12.5) |
| | Lack of feedback from instructors | 8 (2.5) | 60 (18.8) | 92 (28.7) | 104 (32.5) | 56 (17.5) |
| Financial | Educational cost | 64 (20) | 96 (30) | 92 (28.7) | 48 (15) | 20 (6.3) |
| | Inability to afford textbooks or materials | 96 (30) | 96 (30) | 104 (32.5) | 16 (5) | 8 (2.5) |
| | Inadequate financial aid or scholarship | 95 (29.7) | 92 (28.7) | 97 (30.3) | 20 (6.3) | 16 (5) |
| Institutional | Limited access to technology or the internet | 79 (24.6) | 76 (23.8) | 81 (25.3) | 56 (17.5) | 28 (8.8) |
| | Inaccessible academic advisors or counsellors | 76 (23.8) | 84 (26.2) | 88 (27.5) | 48 (15) | 24 (7.5) |
| | Lack of career guidance | 36 (11.2) | 76 (23.8) | 108 (33.8) | 64 (20) | 36 (11.2) |

Personal Barriers

For personal barriers, moderate to major barriers were reported for each personal barrier item. A lack of motivation was identified as a moderate to major barrier (68.8%), considering motivation a significant challenge for most students, which has the potential to impact engagement, study habits, and academic persistence. The findings of this study are consistent with a survey by [17], which claims that motivation is often reported by university students as one of the moderate to major barriers, largely due to high academic pressure and low academic engagement. A strong determinant of academic success is motivation. Low motivation is consistently linked to poor academic outcomes that can impact students' performance [18].

Furthermore, mental health issues were recognized as moderate to very severe obstacles (62.5%) for most university students, representing the most significant personal barriers to their success. There have been numerous systematic reviews and meta-analyses that have reported that the high prevalence of depression and anxiety among university students is now leading to significant mental health problems [4, 5]. Anxiety and depression are commonly reported mental health challenges that can affect students' academic performance due to their impact on motivation, concentration, and cognitive function [19, 20].

For sleep deprivation, moderate to major barriers (65%) were reported as personal challenges commonly experienced due to stress, academic workload, or poor time management. According to [21] conducted a systematic review or meta-analysis that revealed a consistent negative correlation between academic achievement and insufficient sleep duration. The high prevalence of sleep deprivation among students has been identified as a significant barrier to academic success, as inadequate sleep can negatively impact cognitive function, memory consolidation, and overall academic performance [22, 23].

Academic Barriers

Findings on academic barriers indicate that the severity of moderate to major barriers for each item was similar to personal barriers. The majority of students facing challenges in understanding course content reported moderate to major barriers (71.2%), making this one of the most pressing academic challenges. A qualitative study of STEM students found that nearly 59% of respondents reported low confidence in their ability to understand STEM material and succeed in this area, often associated with stressful course conditions and excessive cognitive load [8]. Large introductory STEM courses, such as calculus and introductory physics, are often viewed as challenging by students, with high failure rates of 40-60%, indicating that many students struggle to grasp the course content at a deep level [24, 25]. This study supports previous research findings that many respondents were STEM students. During the COVID-19 pandemic, a study by [26] found that 62% of online students faced difficulties in understanding instructional materials, compared to 42% of in-person students before the pandemic. Therefore, improving course design can benefit such students.

For a heavy course workload, 70% of students reported moderate to major academic barriers. This can lead to high stress, reduced engagement, academic burnout, and lower performance [27, 28, 29]. This study aligns with findings from [30], who found that students in high-demand programs such as nursing and engineering frequently reported heavy workload as a major barrier to academic success. In addition, a study using course load analysis (CLA) conducted by [31] revealed that students who perceived a high workload despite moderate credit hours still faced a higher risk of attrition. Therefore, excessive course loads can negatively affect academic perseverance and are associated with stress, fatigue, and lower academic performance.

Furthermore, nearly 62% of students reported experiencing moderate to major barriers due to unclear feedback and significant delays in receiving it from lecturers. [32] claimed that unclear and delayed feedback can affect student performance, resulting in frustration and missed opportunities for academic improvement. In their study, they highlighted the importance of providing timely feedback to improve students' learning outcomes. However, lecturer feedback has no effect if students are not actively involved. Therefore, both parties must play their respective roles.

Financial Barriers

According to the findings on financial barriers, it is stated that the barriers to education are minor to moderate in terms of educational costs, inability to purchase textbooks or materials, and access to financial aid or scholarships. For the barriers to education costs, it is reported as a small to moderate barrier (58.7%), where many students feel the impact, but not to a severe level. As is known, the tuition fees at this university are relatively affordable compared to those of other public universities in Malaysia. Because of this, middle-income students do not feel too burdened by the cost of education at this university. This study is in line with the findings of [33], which state that in countries with moderate tuition fees, such as Germany and France, this cost is seen as a minor barrier, while in countries such as the UK and the US, where tuition fees are higher, it presents a moderate barrier for middle-income students. Thus, the cost of education is manageable for students pursuing university studies.

The inability to purchase textbooks or teaching materials emerged as the most frequently cited moderate barrier, reported by 32.5% of students. This finding highlights the considerable financial burden that academic resources impose on learners. Previous studies have similarly documented that the high cost of textbooks, particularly those imported from countries such as the UK and the US, often forces students to delay or forgo purchasing essential materials, which in turn can negatively affect their academic performance [12, 34]. Some students reported using coping strategies such as sharing textbooks, relying on library copies, or seeking digital alternatives; however, these measures are not always sufficient to fully address their learning needs. More recent evidence suggests that when affordable or open-access options (e.g., e-books and open educational resources) are made available, students experience reduced financial stress and improved access to learning materials, thereby supporting better academic outcomes.

The financial aid or scholarship barrier exhibits a similar trend to the ability to purchase textbooks, both reflecting a moderate severity level of 30.3%. This finding aligns with a study conducted by [35], which reported that nearly 30% of college students in the U.S. found their financial aid packages to be inadequate.

This inadequacy resulted in moderate barriers, forcing these students to seek part-time employment to support themselves while attending university. After the COVID-19 outbreak, 58% of respondents at U.K. institutions indicated that their student loans were insufficient to cover their expenses, while 25% stated that the loans only covered their living costs while at university [36]. As a result, university students need to be financially smart.

Institutional Barriers

The last barrier, which is institutional barriers, recorded all three items, indicating a moderate level of barrier. Due to the barrier of limited access to technology and the internet, this university faces significant digital access challenges, with 25.3% of students experiencing moderate obstacles, largely attributed to its rural location. This issue is reflected in the data, which shows that 25.3% of respondents identified digital access as a moderate barrier to their education. This finding is consistent with a study conducted in South Africa, which stated that almost 40% of university students identified internet connectivity as a moderate to severe obstacle to assignment completion [37]. A study conducted during the COVID-19 pandemic revealed that nearly 30% of students in the U.S. encountered barriers and challenges due to limited access to devices or inadequate bandwidth. This lack of resources resulted in frequent interruptions during their learning [38].

In terms of academic advisors or counsellors who are difficult to reach, it also revealed a moderate barrier (27.5%), with the availability of guidance services being a worry only at the intermediate level. According to a study conducted by [39], the average ratio of academic advisors to students at 89 large public universities in the U.S. is 1:400, which significantly hampers students' ability to receive timely support and advice. It has been noted that accessing academic advisors can be challenging, with appointment wait times potentially extending up to two weeks. The difficulty in accessing academic advisors can cause students issues, leading to delays in receiving advice. During the pandemic, nearly 30% of students at 69 universities in the U.S. received inadequate and hard-to-access advice because their academic advisors were less skilled in using virtual platforms [40]. These findings indicate that universities should implement policy changes to enhance advising systems, in addition to addressing accessibility challenges. Potential measures include reducing advisor-to-student ratios through additional hiring or peer-advising models, implementing mandatory training in digital platforms to ensure continuity of support in online and hybrid contexts, and adopting same-day or drop-in advising hours to address urgent student needs. Furthermore, the incorporation of proactive advising, where advisors actively contact students at critical academic milestones, can help minimize delays and enhance student outcomes.

Among the barriers to career guidance, this one has the highest moderate barrier rating at 33.8%, indicating a strong perceived need for career support. For the barrier of lack of career guidance, it also has the highest moderate barrier rating of 33.8%, indicating a perceived important and strong need for career support. A study by the Georgetown University Center on Education and the Workforce (CEW) found that 35% of graduates reported feeling unprepared for their careers because their academic programs were not aligned with industry skills [41]. The study also found that students in social sciences were twice as likely to report inadequate career guidance as those in STEM majors. Consequently, institutions must provide job preparedness programs in conjunction with counsellors or alumni for students before they graduate.

CONCLUSION

This study revealed that university students encounter a complex interaction of personal, academic, financial, and institutional barriers that may hinder their academic achievement. Personal barriers that include lack of motivation, mental health challenges, and lack of sleep emerged as significant barriers that can all directly affect concentration and cognitive performance. In addition, academic barriers can also be categorized as severe as personal barriers because difficulty in understanding course content, heavy workload, and unclear and delayed feedback from lecturers can affect student performance. For financial and institutional barriers, although generally assessed as minor to moderate barriers, they still pose challenges to students. Financial barriers include high textbook costs and limited financial aid, which force students to work part-time to manage their campus lives. Simultaneously, regarding institutional barriers, however less significant, it is essential to highlight serious deficiencies in digital access, the availability of academic advisors, and the sufficiency of career guidance for students' academic progress.

Overall, based on these findings, it is recommended that universities implement a holistic framework to address the barriers faced by students. This includes initiatives to improve students' motivation and mental health through easily accessible counselling services. Furthermore, improvements to the curriculum should focus on simplifying complex content and ensuring that students receive timely and constructive feedback. Additionally, institutions should enhance digital infrastructure and expand internet access, particularly in rural areas, while also strengthening career guidance programs to better align academic paths with industry requirements.

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