Test Anxiety: Prevalence and Factors Associated with Test Anxiety Among form Four School Students in Malaysia

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Abstract: *Students who suffer from test anxiety go through a stressful and unpleasant experience that could harm their physical and mental health long term. This study examines the prevalence of test anxiety in Malaysia and investigates the association of test anxiety with socio-demographic factors. A cross-sectional survey comprising demographic data and the FRIEDBEN Test Anxiety Scale (FTAS) questionnaires were used. Of the 371 students who responded, 46% of the students reported a low level of test anxiety, almost 20% a high level of test anxiety, and 34% a medium level of test anxiety. Further analyses suggest that test anxiety is significantly predicted by factors such as gender and ethnicity. These findings can help the education system including the Ministry of Education, schools, teachers, and parents to better understand the scope of the problem and the groups of students who are most affected. Potential policy implications as well as possible interventions to help students are discussed.*

Keywords: *Test anxiety; secondary school students, socio-demographic, prevalence*

Introduction

In Malaysia, examinations are seen as a critical component of the education system, as they play a significant role in determining a student's academic progress and future life pathways (Samuel et al., 2017). Exams are not just used for assessing student learning but also used as a key instrument for admissions to post-secondary education, as well as for accountability at the teacher, school, and ministry levels. Decades of emphasis on examinations have shaped a highly exam-oriented, competitive and exam-results-driven culture (Aziz, 2017; Rajaendram et al, 2022).

The upper secondary school level in Malaysia is a crucial milestone for students as they need to be mentally resilient when preparing for the high-stakes public examinations, *Sijil Pelajaran Malaysia (SPM)* or Malaysian Certificate of Education, at the end of their Form Five secondary education. The focus of teaching and learning is very much trained on preparing for the SPM throughout the two years in upper secondary. The students are often plagued with worries and anxiety as their performance in the examinations is said to determine their future life pathways.

The students often feel stressed about performing in these high-stake examinations, mainly because the results are used as a determining factor in obtaining scholarships, continuing higher studies, and securing promising careers. With such pressure to meet high expectations from both family and society, high-stake examinations can bring about test anxiety that can have a debilitative effect on students' composure and capability during examinations, and this can go on to affect their exam performance and overall well-being (Huntley et al., 2019).

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Yet, recent data about the prevalence of exam or test anxiety in Malaysia is limited, especially with regard to upper secondary students who are preparing to face SPM. Understanding the prevalence of test anxiety can help the educational system in establishing a shared responsibility between schools, parents, and students in creating a healthier learning environment in the classroom and at home.

Literature Review

Education has an integral role across all countries, including Malaysia, where academic achievement is evaluated and determined based on student examination scores. The academic achievement of the students is crucial in creating the finest students who will serve as leaders and the workforce for the nation, making significant contributions to the economic and social growth of the nation. In Malaysia, upper secondary school students will sit for the SPM examination which serves as an entrance exam for secondary education institutions, both public and private. Also, the SPM results are used to determine scholarship allocations. Hence, the upper secondary years of Form Four and Form Five are considered to be crucial examination preparation years for school students.

Wuthrich et al. (2020) conducted a recent systematic review examining the causes and consequences of student distress in the last two years of secondary school. The findings showed that this period causes academic stress across many nations, with many students reporting very high levels of discomfort. According to this review, individual differences in anxiety inclination, gender, the absence of negative thoughts, and attachments to family, friends, and school are all associated with academic distress (Wuthrich et al., 2020). One factor affecting students' performance in the last two years of schooling is their concern about high-stakes exams that lead to test anxiety (Kültür & Özcan,2022).

Test anxiety, also known as examination anxiety, exam stress, and test stress, is distinguished from other anxiety manifestations by its focus on the evaluative context (Zeidner, 1998). In addition, Howard (2020), on test anxiety, stated that test anxiety refers to unfavourable physiological, emotional, and cognitive reactions to an examination or assessment, with symptoms including rapid heart rate and breathing and worry about performing poorly which usually occur before, during, or after an assessed performance.

According to Jerrim (2022), moderate levels of test anxiety may be appropriate since they are just substantial enough to drive students to perform and inspire them without compromising their cognitive function or distracting them away from their current activity. Based on two meta-analyses studies, test anxiety negatively affects one's academic performance and general well-being (Huntley et al., 2019; Von Der Embse et al., 2018).

The Organisation for Economic Co-operation and Development (OECD) administers the Programme for International Student Evaluation (PISA), a comprehensive international assessment every three years of 15-year-old students to evaluate their proficiency in mathematics, science, and reading. For the first time in 2015, a survey was conducted on students to provide in-depth evaluations of their life experiences in terms of self-belonging, subjective well-being, bullying, life satisfaction, supportive relationships with their classmates, instructors, and parents, as well as anxiety connected to academics. According to this survey on test anxiety, 66% of students were anxious about receiving poor results, and 59% of students frequently worried about how difficult the exams would be. Moreover, despite being well-prepared for their exams, 55% of the respondents felt that they could not help but feel worried (OECD, 2017).

Despite the fact that test anxiety for middle and high school students seems to be a worldwide problem, there hasn't been much research on test anxiety among upper secondary students in Malaysia, with the exception of studies on anxiety connected to specific disciplines (e.g., Mathematics, Chemistry, English language, and writing anxiety) and for undergraduate students (Kamaruddin et al., 2019; Kee & Seok, 2019; Mohamed & Tarmizi, 2010). One study, for instance, used the English Language Classroom Anxiety Scale (ELCAS) to examine the types of anxiety among Form Four

students in Selangor (Elas et al., 2020). The findings showed that students had high anxiety levels, with communication apprehension and test anxiety being the most significant categories. In a study conducted by Kamaruddin et al. (2019), Chemistry was the focus of another study on subject-related anxiety. They assessed test anxiety among 258 science stream upper secondary schools across urban and rural areas in Johor, Malaysia.

The results indicated that test anxiety varied significantly, with learning Chemistry emerging as a key contributor to Chemistry anxiety. According to the study, students in Johor experienced test anxiety while studying Chemistry. Also, students in urban schools had higher levels of test anxiety than students in rural schools when it came to managing test anxiety in Chemistry. As a result, anxiety affects school students, and intervention is necessary to stop test anxiety from affecting their tertiary education (Kamaruddin et al., 2019). Even though both studies indicated anxiety in both English and Chemistry, there was no data on the magnitude or prevalence of this specific subject-related anxiety.

One earlier study on test anxiety in Johor was conducted using the Children's Test Anxiety Scale (CTAS), which has three dimensions: thoughts, off-task behaviours, and autonomic reaction (Alia &Talibb, 2015). This study assessed the test anxiety levels of 160 students in Standard Six (aged 12) taking the UPSR (Primary School Achievement Test). The results showed that 28.1% of them had high test anxiety, 56.9% had medium anxiety, 15% had moderate anxiety, and none had low test anxiety (Alia & Talibb, 2015).

Also, test anxiety is higher in female students than in male students, and there was a significant disparity among the genders in the mean of the test anxiety thoughts, off-task behaviour, and autonomic reaction dimensions. According to the researchers, it could be difficult to spot students who are particularly test-anxious at an early stage because these symptoms might not surface until high-stakes exams. They suggested that teachers play a crucial role in supporting and advising students in a variety of areas, including altering learning styles, boosting motivation, offering learning direction, encouraging a positive attitude toward learning, and encouraging self-evaluation (Alia & Talibb, 2015). Hence, test anxiety is also common in Malaysia, and most Malaysian students worry about failing exams because they view exams as a measure of their academic progress (Khaidzir, 2015, as cited in Elas et al., 2020).
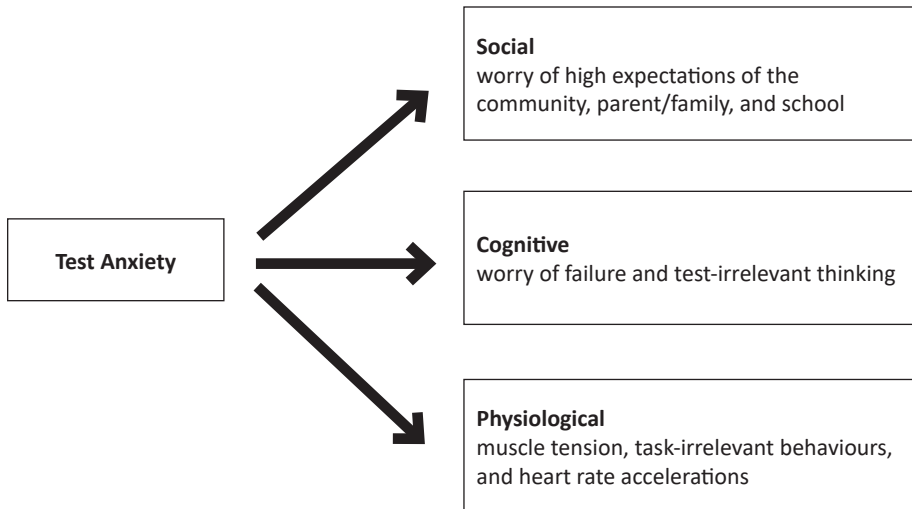
Research on test anxiety in school students discovered that girls experienced more significant test anxiety than male students (Brandmo et al., 2019; Putwain & Daly, 2014). In addition, other demographic variables, including ethnicity, and socioeconomic position, are also significant because they have been linked to a higher risk of test anxiety, according to previous studies (Segool et al., 2014; von der Embse et al., 2018). Panda and Sharawat (2021) stated that in the Indian education system, the stress of taking high-stakes exams would significantly impact the student's future career, parents, and teachers. As a result, such students will experience more significant test anxiety due to the pressure to achieve high marks and the fact that outside examiners will examine the papers. Additionally, most students believe their test anxiety increases nearer the exam date. Hence, the time left before the final exam significantly predicts test anxiety (Panda & Sharawat, 2021).

Regarding the prevalence of test anxiety, Howard (2020) stated that between 12% and 18% of studies were considered to have high prevalence rates of test anxiety. This suggests that, on average, five students out of a class of 30 are likely to have severe test anxiety. In addition, previous studies revealed that 10% to 40% of students suffer from test anxiety (Thomas et al., 2018a). Study skill training, and cognitive, behavioural, and combination techniques were frequently employed in test anxiety interventions to change participants' ideas, feelings, and behaviour (Ergene, 2003; Hembree, 1988; Huntley et al., 2019).

Different theories of test anxiety have developed throughout time and have a multifaceted construct (Friedman & Bendas-Jacob, 1997; Roos et al., 2021; von Der Embse et al., 2018; Zeidner, 1998). In summary, historical, and current research demonstrate that students' physiological and cognitive aspects of test anxiety are experienced mainly by evaluative situations (Thomas et al.,2018b; Roos et al., 2021). Similarly, in the meta-analysis review, Huntley et al. (2019) identified two dimensions: a cognitive component commonly referred to as "Worry," which consists of persistent

thinking about the implications of failure and test-irrelevant thinking, and an emotional dimension, "Emotionality," which is defined as bodily arousal (such as muscle tension, sweating, and heart rate accelerations) which is triggered by test circumstances.

Additionally, Lowe et al. (2008) described the Biopsychosocial model of test anxiety, according to which test anxiety also has a social component related to a person's worries about how their academic performance would be perceived and evaluated by parents, teachers, and peers. Hence, the theoretical assumptions in this study were based on the integration of test anxiety constructs involving physiological, cognitive, and social factors, as shown in Figure 1.

Figure 1: Theoretical Framework for Test Anxiety

As mentioned earlier, research on test anxiety in schools in Malaysia is limited and focused more on specific subject anxiety and university students. Thus, in seeking to fill the gap, this present study aimed to investigate the general prevalence of test anxiety at the upper secondary level and to examine its associations with socio-demographic variables. The research objectives outlined for this study are as follows:

1. To examine test anxiety among Form Four students.
2. To identify the levels of social, cognitive, and tenseness components of the test anxiety among Form Four students.
3. To determine the association between test anxiety and socio-demographic factors.

Methods

This study was conducted in a public secondary school with more than 3000 students and located in the district of Klang, Malaysia. This school is also one of the best-performing schools in the district. The research methodology employed in this study was a quantitative approach involving a cross-sectional survey. The FRIEDBEN test anxiety questionnaire (FTAS) and socio-demographic variables were given to Form Four students aged 16. The FRIEDBEN test Anxiety Scale (Friedman & Bendas-Jacob, 1997) is a free test that can be used to screen large or specific groups of students for test anxiety.

The FTAS is comprised of three subscales, namely social derogation (Items 1-8), cognitive obstruction (Items 9-17), and tenseness or physiological elements (Items 18-23). The 23 items in FTAS measured three theoretically-related scales for test anxiety. The students responded to each item on a four-point Likert scale, ranging from strongly agree (SA), agree (A), disagree (D), and strongly disagree (SD). The scoring for the FTAS four-point Likert questionnaire was as follows: SA = 3, A = 2, D = 1, and SD = 0. Items with an asterisk are reverse scored, as follows: SA = 0, A = 1, D = 2, and SD = 3. By using the scoring method, the score for each item was identified. Next, the scores for all 23 items were summed. A high total score indicated low test anxiety, while a low total score signified high test anxiety.

The socio-demographic survey was distributed to collect information on the students' gender, ethnicity, and household income which was categorised into three different income groups: Top 20% (T20), Middle 40% (M40), and Bottom 40% (B40). B40 household monthly income group earns less than 5,000.00 Malaysian Ringgit (RM), M40 earns less than RM 11,000.00, and the T20 household income is more than RM 11,001.00.

A pilot study was carried out to test the survey instruments on a small group of students from a different school. The Malay version of the FTAS questionnaire was forward and backward translated from English to Malay. The questionnaires were also checked by school counsellors in order to check the suitability of words used in the FTQS items. Based on the pilot study, the reliability analysis for the FRIEDBEN Test anxiety scale was Cronbach Alpha .869.

The cross-sectional survey based on past study prevalence of test anxiety required a minimum of 421 Form Four students. The researcher increased it to 500 due to concerns about higher drop-out rate during the coronavirus outbreak (COVID-19). The survey questionnaires were given to all Form Four students who attended school during the data collection period. Four hundred seventeen students volunteered to take the surveys and provided their responses.

Before the study, the researcher obtained approval from the Ministry of Education, the Selangor Education Department, and the University of Malaya Research Ethics Committee (UMREC). The reference number for the ethical approval was UM. TNC2/UMREC 1455.

Results and Data Analysis

Data were analysed using the 28.0 version of the IBM Statistical Package for Social Sciences (IBM, SPSS, 28: Ill Chicago). The descriptive analysis was used to compute the percentage, mean, standard deviation, and chi-square analysis was used to investigate the association between test anxiety and socio-demographic factors.

A total of 417 students responded to the surveys and during the data analysis, 46 cases were excluded as outliers. The term "outlier" refers to observations that differ from what is regarded as "normal" in some specific ways, and inferential statistics must be checked for outliers since they can lead to incorrect interpretation of the statistical findings (Hair et al., 2019; Pallant et al., 2016). As a result, the boxplot was utilised to identify the outliers in the current study. Hence, the sample size that remains for the main study was 371 students after removing the outliers. The demographic information for 371 Form Four students are shown in Table 1. Based on the table below, more than half of all respondents consist of female respondents, 55.8% (n =207). Furthermore, most of the participants are Chinese, 43.2% (n=160), followed by Malay, 41.2% (n=153), Indian, 13.7% (n=51), and others, 1.9% (n=7). Regarding socio-economic status (SES), students from B40 families are 39.9% (n=148), while those from M40 families are 38.3% (n=142), and T20 families are 21.8% (n=81).

Table 1. Demographic Profile of 371 students

Demographic	Categorical	Frequencies n	Percentage %
Gender	Malay	164	44.2
	Female	207	55.8
Ethnicity	Malay	153	41.2
	Chinese	160	43.2
	Indian	51	13.7
	Others	7	1.9
Social-economic status (SES)	B40	148	39.9
	M40	142	38.3
	T20	81	21.8

Note: B40: Less than RM 5000.00
M40: Less than RM 11000.00
T20: More than RM 12000.00

Regarding the test anxiety instrument, Putwain and Daly (2014), stated that test anxiety levels could be classified as low, medium, and high based on students' experiences and not on how well they performed in comparison to other students (Putwain & Daly, 2014). Thus, the 33.3 and 66.6% terciles of the scale anchors were chosen as a priori bounds for low, medium, and high-test anxiety since there were no standardised scores given by the FTAS developer (Putwain & Daly, 2014).

Hence, this step was also followed in this study, and Table 2 shows the frequency and percentage of the level of test anxiety, and the results indicate that most of the students rate themselves with a low level of test anxiety, 45.8 % (n=170). However, close to 20% (n=73) have a high level of test anxiety, while the 34.5% (n=128) rate themselves as experiencing a medium level test anxiety.

Table 2. Frequency and Percentage for the Level of Test Anxiety

Level of Test anxiety	Frequency n	Percentage %
High < mean=1.48	73	19.7
Medium (mean=1.48-1.83)	128	34.5
Low (mean>1.83)	170	45.8

Note: A high mean score indicates low test anxiety

In relation to social, cognitive, and tenseness components of test anxiety, based on Table 3, most students have a high level of tenseness with 32.9% (n=122), followed by a social deviation of 31.3% (n=116). In contrast, cognitive obstruction is considered to be the lowest level of test anxiety construct with a value of 51.5% (n=191) compared to social deviation and tenseness 44.4% (n=165), and 28.8% (n=107), respectively.

Table 3. Frequency and Percentage of Social, Cognitive, and Tenseness Components of Test Anxiety

Test Anxiety Constructs	High		Medium		Low	
	N	%	N	%	N	%
Social Deviation	116	31.3	90	24.3	165	44.4
Cognitive Obstruction	51	13.7	129	34.8	191	51.5
Tenseness	122	32.9	142	38.3	107	28.8

Note: A high mean score indicates low level, m=mean
social deviation (high m <1.38, medium m= (1.38- 1.88), low m > 1.88)
cognitive obstruction (high m <1.56, medium m= (1.56-2), low m > 2)
tenseness (high m<1.29, medium m= (1.29 -1.67), low m > 1.67)

The Association between Test Anxiety and Socio-Demographic Factors

Chi-square tests were carried out to examine the association between test anxiety levels and the various socio-demographic information. Table 4 shows the chi-square statistics of students' test anxiety levels and socio-demographic factors. The Pearson chi-square values reveal that test anxiety levels amongst students are significantly associated with student's gender identity (χ2 = 8.178, df = 1, N = 371, p <.05). Female students are more likely to have a high test anxiety level than male students (24.1%, and 13.4%, respectively).

Table 4. Chi-Square Analysis of Levels of Test Anxiety and Socio-Demographic Factors

Variables	N	Level of Test Anxiety	χ2	P	Phi
Gender		High Medium Low	8.178	.017	.15
Male	164	22(13.4%) 57(34.8%) 85(51.8%)			
Female	207	51(24.6%) 71(34.3%) 85 (41.1%)			
Ethnicity			31.741	.<.001	.29
Malay	153	41(26.8%) 63(41.2%) 49 (32.0%)			
Chinese	160	20(12.5%) 56(35.0%) 84 (52.5%)			
Indian	51	12(23.5%) 6(11.8%) 33 (64.7%)			
Household Income			.888		.867
B40	148	29(19.6%) 51(34.5%) 68 (45.9%)			
M40	142	31(21.8%) 49(34.5%) 62(43.7%)			
T20	81	14(17.3%) 27(33.3%) 40 (49.4%)			

As for ethnicity, the results indicate that students' test anxiety level was significantly associated with students' ethnicity (χ2 = 31.741, df = 2, N = 364, p <.001). Malay students experience a higher level of test anxiety than Chinese and Indian students. Finally, for household income, as shown in Table 4, there is no association found between the household income group and the student's level of test anxiety (χ2 = .888, df = 2, N = 371, p >.05).

Discussion

The present study examined test anxiety and investigated the association of test anxiety with socio-demographic factors. The findings from this present research showed that about 54% of Form Four students have moderate to high test anxiety, and 19.7% have high test anxiety. Similarly, in another recent study, 2158 school children in India completed the test anxiety inventory (TAI), and the findings showed that about 66% of the children (age: 9 to 18 years old) have moderate to high test anxiety and about 18% have high test anxiety (Lohiya et al., 2021). In fact, Howard (2020) found that the estimated value for high test anxiety among children and adolescents (aged 7 to 21) was in the range of 12%–18%. This review focused on the UK as well as outside the UK education system. The results of this study demonstrated that test anxiety is prevalent among Form Four students in Malaysia and is consistent with findings from previous research. Hence, we can infer that test anxiety is a typical educational problem that seems to affect all students in many countries.

In terms of the construct of test anxiety, results showed that tenseness and social construct contributed more to test anxiety among the Form Four students than cognitive obstructions. Past research also showed students' physiological arousal comprised of increased heart rate and shallow or rapid breathing, and in a social construct, the students may experience worry thoughts as they fear being negatively judged by teachers, parents, and friends (Lowe et al., 2008).

A previous study on school students' test anxiety by Putwain and Daly (2014) showed that tension score was the highest, followed by worry and social was the lowest. Although the tension score was highest in this study, the other two constructs had opposite results. The students in this study comprised 2435 secondary school students, and they experienced examination as anxiety provoking and worried about failing, and the tension and worry were also due to the negative judgements from others (Putwain & Daly, 2014). By comparison, students in the current study were more worried about their results and more concerned about the negative judgement of others. This finding signalled the need for a meaningful solution for schools and education departments. For example, for the social construct of test anxiety, school counsellors can conduct programmes involving parents to reduce parental pressure on students.

Gender also seems to be a significant factor in test anxiety that has been extensively studied. This study found that female students were more likely than male students to experience substantial exam anxiety. Generally, most studies reported the same findings as in this study (Aydin, 2019; Brandmo et al., 2019; Dinc & Oguz Duran, 2021; Perez et al., 2019; Putwain and Daly, 2014; Rehman et al., 2021; Sarı et al., 2018). This could be explained by gender disparities in students' coping mechanisms, socialisation styles, and awareness of the test anxiety issue (Zeidner 1998, p281). Additionally, Brandmo et al. (2019) suggested that women, as opposed to men, are more vulnerable to test anxiety because of their sensitivity to evaluative settings.

According to studies, female students are more worried about exams and experience a higher level of stress, as well as the social component of test anxiety, which involves worrying about how others will perceive them (Howard, 2020). Also, in accordance with cultural and social expectations, male students prefer to underreport their test anxiety because doing so can be seen as a challenge to their manhood, whereas women are more likely to express their test nervousness (Lohiya et al., 2021; Núñez-Peña et al, 2016). Moreover, female students are more afraid of failing in a test situation. Nevertheless, some studies have found that this does not appear to impact their academic performance (Núñez-Peña et al, 2016).

However, this result contrasts with other research that revealed no differences in test anxiety levels between male and female students (Bodas et al., 2008; Msayar et al., 2016; Nweze, 2014). According to Bodas et al. (2008), the shift in gender roles and societal expectations towards women's education, especially in urban areas like Mumbai, as well as the rise in female literacy in India, could be the cause (Bodas et al., 2008).

As for ethnicity, previous meta-analyses on test anxiety revealed that minority students are more likely to report higher test anxiety levels than other demographic groups (Von Der Embsee et

al., 2018). Surprisingly, compared to Chinese and Indian students, Malay students reported having more test anxiety, although Malay ethnicity is the majority group in Malaysia. A possible reason could be that most of the participants in the current study were from more competitive classrooms, and there were more Chinese students than Malay students. Most Malay students normally apply to join MRSM or Mara Junior Science College, a boarding school generally for higher-performing Malay students. Therefore, only a few Malay students were left in these competitive classrooms. Hence, they were probably more apprehensive about tests that may help to explain the findings. Furthermore, the expectations of parents, teachers, and peers may add to the strain already placed on the Malay pupils, increasing their stress levels.

The other socio-demographic predictor investigated was the students' household income which was categorized into three different income groups: Top 20% (T20), Middle 40% (M40), and Bottom 40% (B40). B40 household income group earns less than RM 5,000.00, M40 earns less than RM 11,000.00, and T20 household income earns more than RM 12,000.00. The results showed no association between the household income group and the student's level of test anxiety. Therefore, it can be assumed that in this study, the family household income did not influence test anxiety. This finding was in line with research which examined test anxiety among Turkish elementary and high school students and found no association between test anxiety and income (Aydin, 2013).

This finding, however, conflicted with most of the earlier research, which claimed that students from lower SES backgrounds experienced more significant levels of test anxiety than those from higher SES backgrounds (OECD, 2017). This seemingly contradictory result may be attributable to the fact that some students have more effective coping techniques for managing their exam anxiety. For instance, the students may be satisfied with their material needs and not feel inferior compared to individuals from higher economic brackets. It might also be the parenting style of the parents that prioritise their child's education and are able to accommodate the pupils' requirements. These factors explain why there is not always a negative correlation between pupils' test anxiety and their family's socioeconomic status (Xu et al., 2021). Furthermore, according to Bodas et al. (2008), students in India who faced stressful situations exhibited better-coping behaviours because they had access to services and support systems in their culture that could assist them in developing coping mechanisms. Examples include after-school tutoring programmes and helplines for students during exams. Furthermore, these high-stakes examinations are typically predictable and timed. Thus, children, parents, and educators can plan and prepare for them. Thus, these adaptive coping abilities provide individuals with some control over the evaluative circumstances (Bodas et al., 2008).

Limitations and Implications of the Study

The COVID-19 pandemic was the main barrier to this study's implementation, as it caused delays and made it difficult to obtain approval in time. Additionally, students were under stress navigating the pandemic and taking turns attending classes. As a result, the findings shown here may have been impacted by the effects of continuing lockdowns. Another limitation is the percentile classification used to divide students into low, medium, and high-test anxiety groups. This technique has some drawbacks whereby it is not comparable to other studies and may not be very suitable for equating individual scores of subtests with the different number of response categories (Satyendra Nath, 2020; Wang & Chen, 2012).

Based on these findings, educational institutions might try to lessen student academic stress, particularly test anxiety, with the assistance of counselling departments by providing programmes that have been shown to lessen test anxiety and coaching students on how to deal with and manage test anxiety. Teachers also play a vital part and should empower students to learn meaningfully and inspire them during exam time. In addition, teachers can help students develop their self-confidence and self-esteem by offering support, assurance, encouragement, and teaching simple skills like breathing and relaxation. Above all, the Ministry of Education (MOE) should concentrate on developing sensible educational policies and avoid revising them frequently due to political influence.

Final Discussion and Conclusion

Like most of its Asian contemporaries, Malaysia's education system is sometimes criticised for being overly exam-focused (Heng et al., 2015; Huan et al., 2019). The Primary School Achievement Test (UPSR), Lower Secondary Evaluation (PMR), and SPM are high-stakes exams conducted in Malaysian public schools. The elimination of the UPSR and PMR exams in 2021 was done so that school-based assessments (SBA) could be introduced successfully to support meaningful and holistic learning. The SBA concept was introduced in parts to lessen the detrimental washback effects of high-stakes exams, particularly the UPSR and PMR (Ong, 2010 as cited in Huan et al., 2019), but the impact so far has been somewhat limited (Ayamany, 2022). The MOE has introduced non-academic SBA components like PAJSK (physical activities, sports, and co-curriculum assessment) and psychometric evaluation, which are run by teachers at the school level, to lessen the washback effect of the high-stakes standardised exams (Huan et al., 2019). These are significant steps, but there is still much to be done as teachers and students learn to adjust to the new system.

However, the SPM examination still plays a crucial role and has a significant impact on upper secondary students as it serves as a school exit examination and determines their future studies and getting scholarships. Moreover, according to Alia and Talibb (2015), it might be challenging to identify students who are extremely test-worried at an early stage because these symptoms may not appear until the students sit for high-stakes exams. Hence, although the number of high-stakes examinations has been reduced in Malaysia, upper secondary students will still have to face the high-stakes SPM and the stress and anxiety students undergo still need to be monitored.

The prevalence of test anxiety among Form Four students is quite similar to that reported in earlier studies, demonstrating that test anxiety is a widespread issue that requires early management. The findings of this study suggest that almost 20% of upper secondary school students have high test anxiety; females have higher test anxiety than male students. In addition, in this study, Malay students have higher test anxiety compared to Chinese and Indian ethnicity. Hence, understanding the prevalence of test anxiety and its constructs can help the education system including the MOE, schools, teachers, and parents to identify the scope of the problem and the groups of students who are most affected. Prevalence data can eventually help in the development of better policy as well as targeted interventions to help students manage their test anxiety.

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