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A Systematic Review: Academic Anxiety in School-Aged Students

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ABSTRACT

Academic anxiety is a phenomenon prevalent at various levels of education, including elementary school, junior high school, high school, and college. In educational settings, students navigate subjects, interact with instructors, and engage in activities that foster personal development and interests. This systematic review aims to provide a comprehensive overview of academic anxiety experienced by school students from elementary to high school age. The main data sources for this review were 1247 articles from Google Scholar, Tandfoline and Scopus database which turn to 25 articles selected after criteria screening. A two-week search was conducted for articles relevant to this topic, written in English, and published between 2018 and 2023. The findings highlighted several factors that influence academic anxiety, which include academic competence, competency testing, time management, study strategy techniques, parental expectations, anxiety levels, language proficiency, problematic smartphone use, self-regulation, and academic performance. This research reveals that academic anxiety is not only limited to students, but also extends to various aspects of educational institutions, including subjects, instructors, exams, and extracurricular activities.

Keywords: academic anxiety, impact, primary, middle and high school students (up to 18 years of age)

1. Introduction

In today's highly competitive educational environment, academic anxiety has become a prevalent problem among junior high school adolescents (Tang & He, 2023). This is evident from the increasing number of students reporting feelings of stress, worry, and distress regarding their academic performance (Rusuli, 2022). Previous research suggests that academic anxiety among junior secondary school adolescents may adversely affect their overall well-being and academic performance (Pascoe et al., 2019). Survey data from several junior secondary schools across the country in Indonesia have shown an alarming increase in academic anxiety among adolescents. A study revealed that 70% of junior high school students reported experiencing high levels of academic anxiety, which impacted their mental health and performance at school and found a correlation between academic anxiety and decreased academic performance in junior secondary school students (Lee et al., 2022).

These findings provide strong evidence suggesting the detrimental impact of academic anxiety on adolescents, emphasizing the urgency of comprehensive strategies to address this issue in educational settings. Academic anxiety experienced by junior high school adolescents can manifest in various ways, such as affecting their ability to concentrate, retain information, and perform well in exams (Alfonso &Lonigan, 2021). Furthermore, this ongoing stress can lead to impaired mental health, including depressive symptoms and decreased self-esteem (Ji et al., 2022).

The impact of academic anxiety on middle and primary school adolescents is less favourable. For example, students may experience difficulties in concentration, retaining information, and performing well in exams (Tang & He, 2023). In addition, persistent academic anxiety can also have a negative impact on their mental health, including depressive symptoms and decreased self-esteem. Academic anxiety can disrupt sleep patterns, cause eating disorders, and contribute to physical and mental fatigue (Afifah&Pangestu, 2021). Along with the increasing awareness of academic anxiety in secondary school adolescents, several journals have stated the impacts associated with this condition. According to research published in the Journal of Adolescent Mental Health in 2021, academic anxiety can lead to decreased concentration, increased stress symptoms, and even disrupt emotional balance in adolescents (Permatasari&Prasetyawati, 2023). In addition, the journal Educational Psychology also highlights that academic anxiety can affect students' level of learning motivation, which in turn can impact their academic achievement (Novita &Mastuti, 2023). From a psychological perspective, it was found that academic anxiety can interfere with cognitive processes that are vital in adolescent learning (Afifah&Pangestu, 2021). An article in the Journal of Adolescent Psychology explains that academic anxiety can affect adolescents' cognitive capacity, limiting their ability to process new information and relate it to existing knowledge. This can impact their ability to cope with academic tasks and exams (Taty, 2020).

In this context, it is important to note that learning approaches that address students' emotional well-being can be key in addressing the impact of academic anxiety (Rathod & Chauhan, 2023). Curriculum development efforts that emphasise the balance between academic achievement and mental health can be a step in reducing the pressure felt by secondary school adolescents (Rathod & Chauhan, 2023). A survey found that around 60% of secondary school adolescents reported experiencing academic anxiety on a regular basis. Based on these findings, it can be concluded that academic anxiety in secondary school adolescents can have a negative impact that significantly affects their well-being and academic performance (Kambuga,

2016). Therefore, managing and resolving the phenomenon of academic anxiety is very urgent to create a young generation that is full of achievement and has good mental health.

Given these concerning findings, it is imperative for educational institutions to implement targeted interventions to support adolescents in managing their academic anxiety (Wen et al., 2020). Various studies in this regard provide several solutions to reduce or resolve academic anxiety conditions, for example providing access to mental health resources, such as counselling services and stress management workshops, can offer students tools and techniques to cope with the pressure of their academic expectations (Sá et al., 2018). In addition, promoting a supportive and nurturing school environment where students feel comfortable to seek help and express their concerns is crucial in addressing academic anxiety among junior high school adolescents (Wen et al., 2020). Additionally, engaging parents in conversations and providing them with resources to recognise and support their child's mental wellbeing can contribute to a holistic approach in reducing academic anxiety (Green et al., 2016). Collaboration between educators, mental health professionals, and parents can create a comprehensive support system for adolescents, ensuring that they receive the necessary help in dealing with their academic stressors (Niraj, 2020).

Susan Carter and colleagues in 2023 from the University of Sourthern Queensland Australia conducting research in six primary and secondary schools in Australia found that learning with an inclusive, intuitive, and instrinsic culture can reduce children's academic anxiety because each child feels that he is appreciated for his condition and situation when learning and teachers can provide all the support so that children can continue to maximise their learning. However, this study also suggests that parents should be the first to identify children's anxiety and teachers also need professional training in helping to resolve academic anxiety at school. Collaboration between parents and school teachers is inevitable to resolve or reduce students' academic anxiety.

Moving forward, further research and evaluation of intervention strategies will be essential to further understand and address the complexities of academic anxiety in junior high school adolescents. By prioritising students' mental well-being, educators and stakeholders can work to foster positive and nurturing learning environments for all adolescents (Alfonso &Lonigan, 2021). This shows that the role of parents, educators, stakeholders and the community is important to minimise the occurrence of academic anxiety and maximise the academic performance of students both at the primary school level and at the secondary school and tertiary levels.

To know how to resolve academic anxiety, it is necessary to explore the causes of academic anxiety. There are several factors that can cause academic anxiety in high school adolescents. Some of the factors that cause academic anxiety in secondary school adolescents include: (1) high expectations from parents and teachers on adolescents' academic performance. This situation can create great pressure for adolescents to succeed in school and meet the expectations of others (Nasir, 2023); (2) social comparison with peers is also a contributing factor to academic anxiety. In the school environment, adolescents often feel pressured to achieve the same or even higher than their friends. In the school environment, adolescents often feel pressured to achieve the same or even higher than their peers. They feel the need to compare themselves with others and reach the standards set by the surrounding environment (Widodo &Alizamar, 2019); (3) high academic demands and high workload can also cause academic anxiety in adolescents (Tang & He, 2023); (4) inability to cope with academic pressure and stress, and (5) feelings of insecurity and low self-esteem related to academic ability (Rosyidawati et al., 2021). To reveal the dynamics of the phenomenon of academic anxiety from the context of the factors that cause and impact academic anxiety, researchers conducted a systematic literature review (SLR) to see the extent of the landscape of research results related to academic anxiety so far from 2018-2024.

2. Method

The data used in this literature review are taken from research journals that are relevant to the topic discussed. The target population for this literature review is all research journals that meet predetermined criteria. Population decision is based on exclusion and inclusion criteria adopted from the method described by Cooper (2016). Inclusion criteria used to filter out research journals are any articles relevant to the topic, while exclusion criteria used to eliminate journals are any articles irrelevant or unrelated to the topic. In this study, artciles discussing influencing factors were selected, with publication periods from 2018 to 2023. We chose recent journals because the arguments and findings in older journals may no longer be relevant or have been refuted by more recent research. In addition, a systematic search was also conducted on international journals. The search was conducted through various search engines such as Google Scholar, Researchgate.net, Scopus, and Tandfonline. The keywords used in the search for related journals included "academic anxiety", "stress academic" and "students" After the selection of 1247 journals, 25 journals were identified that discussed factors affecting academic anxiety.

Subsequently, all journals were filtered based on their titles and abstracts. Journals with suitable titles and abstracts were then thoroughly reviewed. Out of the 1246 journals initially found, only 25 were identified as discussing factors affecting body image. The journal selection process is illustrated in the PRISMA diagram in Figure 1. The criteria for journal review included: 1) Journals discussing academic anxiety in school student, 2) Publication years between 2018-2023, 3) Journals only written in English, 4) Studies focusing on academic anxiety, 5) Both qualitative and quantitative research types. Journals that did not meet the selection criteria included those are literature reviews or book forms.

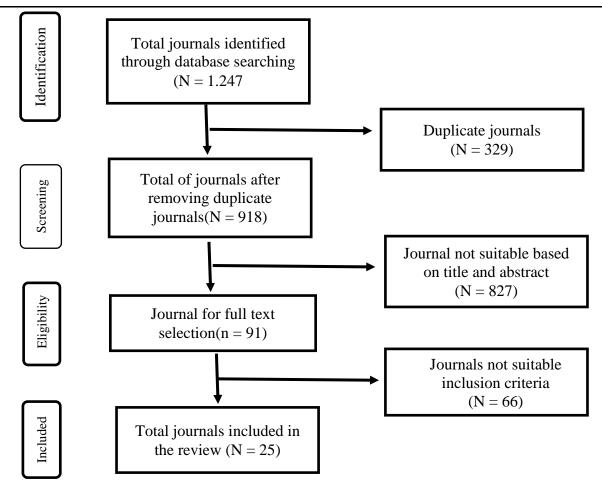


Figure 1: PRISMA Flow Diagram for Article Selection Procedures

3. Result

The study examines the factors that contribute to academic anxiety among junior high school students The results of previous research searches related to academic anxiety among school children can be seen in the following Table 1.

Table 1	Factors and	description of	academic anx	iety

No	Factors	Description	Article References
1	Test Anxiety	Excessive worry about exams that can disrupt academic performance.	(1, 2, 3, 4)
2	Anxiety Towards Difficult Subjects, Especially Math	Intense fear or anxiety towards subjects perceived as difficult, such as mathematics	(1, 2, 3, 4)
3	Academic Stress	Mental pressure related to excessive academic workload or challenges in learning.	(1, 2, 3, 4)
4	Gender	Females tend to be more susceptible to academic anxiety and stress.	(4, 8)
5	Feeling Unaccepted by Peers in Class	Feeling ignored or unaccepted by classmates in the school environment	(4, 8)
6	Fear of Teachers	Anxiety caused by teachers' intimidating behaviour or attitudes towards students	(4, 8)
7	Low Self-efficacy in Subjects	Lack of students' confidence in their ability to succeed in specific subjects	(5, 6, 7)
8	Parents' Educational Level	Lower parental education levels can affect the support they provide to their children in learning.	(9, 10)

9	Parents' Economic Status	Lower economic status may limit children's access to educational resources and adequate support.	(9, 10)
10	Challenges with Online Learning During Covid-19	Difficulties in adapting to effective online learning methods during the pandemic.	(9, 10)
11	Low Emotional Intelligence	Lack of ability to recognize, understand, and manage one's own and others' emotions.	(11, 12)
12	Low Self-regulation Skills	Inability to control and manage emotional reactions and behaviours effectively	(11, 12)
13	Impact of Covid-19 Lockdowns	Social and physical limitations due to lockdowns affecting students' mental and academic well-being.	(13, 14, 15, 16, 17)
14	Intolerance of Uncertainty	Inability to cope with uncertainty and changes, especially during the pandemic.	(13, 14, 15, 16, 17)
15	Low Self-efficacy in Computer and Technology Use During Covid-19	Lack of confidence in using technology for online learning during the pandemic	(13, 14, 15, 16, 17)
16	Internet and Social Media Addiction	Excessive use of the internet and social media leading to issues like anxiety and sleep disturbances.	(19, 20, 21)
17	Fear of Missing Out (FOMO)	Fear of missing important information or experiences often triggered by social media use	(19, 20, 21)
18	Screen Use Before Bed	Use of electronic devices before bedtime that can disrupt sleep patterns and quality	(19, 20, 21)
19	School Intolerance or Lack of Inclusive Culture for Special Needs Students	Schools' inability to provide an inclusive environment for students with special needs, such as autism.	(22)
20	Bullying and Cyberbullying in School	Experience of direct bullying or harassment, either in school or through digital media, negatively impacting mental health and academic performance.	(22, 23, 24)
21	Unmet Psychological Needs	Lack of fulfilment of psychological needs for love, belonging, and autonomy essential for children's psychological well-being	(25)

In general, research results can be classified according to the factors that influence the phenomenon of academic anxiety experienced by students in both primary and secondary school settings around the world. These factors include test anxiety, anxiety about difficult subjects, especially mathematics, and the emergence of academic stress (1, 2, 3, and 4), gender factors where women are prone to anxiety, feelings of not being accepted by other students in the classroom, and teacher fears that are conveyed to students in the classroom (4, 8).

Other factors cover factors of low self-efficacy / feeling capable in student lessons (5, 6, 7), education level, parents' economic level and difficulties in online learning (9, 10), the presence of low trait emotional intelligence and low self-regulation skills (11, 12), Covid19 lockdown factor, intolerance to uncertainty, and low self-efficacy towards computer and technology use during Covid (13,14,15,16,17), internet and social media addiction (often creating FOMO/Fear of Missing Out symptoms) and bedtime layer use (19, 20,21), intolerance at school or the absence of a culture of inclusion so that children hide their identity as autistic (22), bullying and cyberbullying at school (22,23,24), and finally the unmet basic psychological needs of children such as the need for love, belonging, and power (25) More detail information regarding the predicting factors contributing to academic anxiety can be seen from Table 2.

Table 2 Predictors for academic anxiety

No	Authors	Predictors of academic anxiety	Sample
1	Okigbo at al. (2023).	The study found that high levels of test anxiety among secondary school students had a negative impact on their academic performance in mathematics. Students with high test anxiety tended to have lower performance compared to those with low anxiety.	Middle school students

2	Carey et al, (2017)	This study explored different forms of academic anxiety, including maths anxiety and test anxiety, and their impact on academic performance from primary to high school students. This study shows that specific academic anxiety, such as maths anxiety, can have a significant impact on academic performance compared to generalized anxiety.	1,720 students in England, ages 8-9 and ages 11-13.
3	Michaela et al. (2020)	The article concluded that high academic stress in students can reduce quality of life and well-being, and increase the risk of mental health problems such as anxiety and depression. Research also shows that academic stress can affect students' academic performance and level of engagement in learning, with students who experience high stress tending to have lower achievement and reduced engagement.	Students in middle and tertiary (higher education) schools
4	Wuthrich et al, (2021)	This article found that factors such as gender (especially female), anxiety tendencies, and low emotional self-efficacy were associated with increased stress, depression, and anxiety in students in the final year of high school. Lack of connectedness with peers and fear of teachers were also associated with increased stress and depression. Baseline stress and test anxiety were found to be strong predictors of pre-test distress. The results showed that these factors significantly affect the psychological state of students at this crucial time.	12th-grade students from 7 high schools in the Greater Sydney Area, NSW, Australia.
5	Türkmenoğlu et al,(2020)	In this study, it was found that students' anxiety levels towards mathematics tended to be low and their self-efficacy perceptions tended to be high. In addition, there were no significant differences in these variables based on gender. These results suggest that students may have a strong belief in their ability to succeed in mathematics and low anxiety may help improve their performance in the subject.	193 fourth- grade students in Pozantı, Adana, Turkey.
6	Poursaberi et al, (2023)	This study aimed to predict school anxiety in 269 junior high school students in Tabriz, Iran, in the 2022-2023 school year. Using a descriptive correlational approach and randomised cluster method, data were collected through questionnaires assessing school anxiety, academic self-efficacy, academic support, and academic engagement. Analyses with Pearson correlation coefficient and multiple regression using SPSS showed that academic self-efficacy, academic support, and academic engagement were significantly negatively related to school anxiety ($P<0.01$) and explained 56.5% of anxiety variability ($P<0.001$).	269 middle school students in Tabriz, Iran.
7	Gao X. (2023)	This article examined the relationship between academic stress, academic anxiety, and academic burnout among adolescents. They found that academic anxiety acts as a mediator between academic stress and academic burnout, with low academic self-efficacy exacerbating the negative effects of anxiety.	269 secondary school students.
8	Rakhmanov et al, (2020)	This study found that female students had higher levels of test anxiety than male students at both the senior (t=4.001, p=0.00) and junior (t=2.896, p=0.00) levels. COVID-19-related anxiety was also higher among female students at the senior level (t=4.621, p=0.00), but there was no significant difference at the junior level (t=1.591, p=0.114). Isolation did not affect COVID-19 or test anxiety in either group, but students who were isolated had lower test anxiety (t=2.382, p=0.021). Student's t-test and Pearson correlation analysis were used for data analysis.	135 senior and 152 junior secondary school students in Nigeria.
9	Alazzam et al, (2021)	During the COVID-19 pandemic, most students experience depression and anxiety. Factors such as parental education, online learning difficulties, gender and age affect anxiety levels. Anxiety was higher in female students. Research using regression showed that family history of mental illness, school type, and socio-economic factors affected students' depression and anxiety, with the model able to explain 15% of the variation in anxiety scores.	Senior high school students in Jordan.
10	Radwan et al, (2021)	The study found that most students experienced moderate to severe levels of anxiety (89.1%) and depression (72.1%) during the COVID-19 pandemic. Only about a third of them (35.7%) experienced similar levels of stress. Gender, age, family size and family economic status were significant predictors of anxiety, depression and stress in students. These findings emphasise the importance of supporting students' mental health in a crisis such as the COVID-19 pandemic.	420 elementary and middle school students in Gaza Strip, Palestine.

11	Fiorilli et al, (2020)	This study found that students with high trait emotional intelligence (TEI) tend to have lower academic anxiety, better resilience, and less risk of school burnout. These results support the importance of TEI in reducing academic anxiety and increasing students' resilience. The findings also emphasise the need for interventions to improve students' emotional adjustment at school.	Secondary school students.
12	Ragusa et al, (2023)	This study examined the effect of academic self-regulation on procrastination, academic stress and anxiety, resilience, as well as academic performance in secondary school students in Spain. The results showed that academic self-regulation can reduce procrastination and stress, which in turn reduces academic anxiety.	991 high schoo students aged 16 and 19
13	Azizi et al, (2022)	The study found a significant negative relationship between computer self-efficacy (CSE) and anxiety towards e-learning among high school students. Students with high CSE tend to experience lower levels of anxiety, which in turn improves digital literacy, problem-solving skills, learning satisfaction, and results in a more structured learning experience.	30 high schoo students using random sampling method.
14	Giannopoulou et al, (2021	During the national lockdown in Greece, anxiety and depression scores significantly increased compared to pre-pandemic levels. Depression rates rose to 64%, and anxiety rates increased to 50%. Severe depression symptoms climbed from 10% to 27%, while severe anxiety symptoms went up from 3.8% to 20.5%. Research indicates that discomfort during the lockdown became a major predictor of poor mental health, accounting for about 30% of the variation in depression and anxiety symptoms, even after considering other factors such as gender and pre-pandemic symptom levels.	High schoo students in Greece preparing fo university entrance.
15	Dorčić, T. M., et al (2023)	Stress from the COVID-19 pandemic, intolerance of uncertainty, and cognitive emotion regulation strategies significantly contribute to anxiety in children and adolescents. Research indicates that stress impacts anxiety both directly and indirectly through intolerance of uncertainty and less adaptive emotion regulation strategies. These findings are crucial for developing interventions aimed at enhancing tolerance for uncertainty and improving emotion regulation.	234 student aged 11 to 15.
16	Yin et al (2022)	The article investigates academic anxiety among high school students during the COVID- 19 pandemic. It found that the transition back to in-person learning increased anxiety levels among students. The use of the Generalized Anxiety Disorder-7 (GAD-7) scale helped measure the anxiety levels experienced by the students.	High schoo students in grades 9 to 12.
17	Yaksi et al, (2021)	During the COVID-19 pandemic, research found that 22.9% of high school students experienced depression. The median score for trait anxiety was 44, while the median score for state anxiety was 39. Contributing factors to depression included low income, perceived risk to family, non-professional sources of information, high screen time, maternal stress related to COVID-19, and poor family communication. Factors influencing state anxiety included high academic performance, lack of regular exercise, perceived risk to family, living alone, parental stress related to COVID-19, and poor family communication.	506 student from schools in Nigde and Osmaniye, Turkey.
18	Tingting et al, (2021)	his study found variations in the developmental trajectories of depression and anxiety among first-year middle school students in China, with different groups exhibiting distinct patterns of development. The hypothesis testing results indicated that the progression of depression and anxiety is associated with a tendency towards internet addiction. These patterns may impact long-term internet addiction, offering crucial insights for preventive and intervention strategies concerning mental well-being and internet addiction among students.	First-year hig school student in China.
19	Chengqi et al, (2022)	This article presents research findings indicating significant levels of anxiety, depression, and PTSD among high school students in China during the COVID-19 pandemic and lockdown. The hypothesis testing results demonstrate that exposure to COVID-19 is significantly associated with mental health conditions such as anxiety, depression, and PTSD. Additionally, poor family relationships and lack of social support are identified as key factors contributing to negative mental health outcomes. This study underscores the importance of recognizing these risk factors when designing effective mental health	57,948 middle school student in China.

		interventions for high school students, both during and after the COVID-19 pandemic.	
20	Xiaoning et al, (2021)	This study found that teenagers who use screens before bedtime experience more severe sleep disturbances compared to those who do not, even though the total screen time throughout the day does not significantly affect sleep quality. The more severe sleep disturbances are associated with better academic performance and higher levels of anxiety, although there is no direct relationship between sleep disturbances and academic achievement.	Teenagers aged 15-17 from two public schools in China
21	Gulati et al, (2023)	The research reveals that 10% of students have a normal level of internet addiction, 56% have a mild level, 33% have a moderate level, and only 1% have a severe level of addiction. There is a correlation between the level of internet addiction and anxiety levels among high school students, with those having lower levels of addiction tending to exhibit lower levels of anxiety. Additionally, female students tend to have higher levels of anxiety compared to male students.	600 high school students in Bhopal.
22	Debra et al, (2021)	This research found that adolescents with autism are able to articulate their experiences of anxiety, with certain schools employing effective strategies that could be adopted across secondary education. Adolescents increasingly recognize symptoms of anxiety as they grow older and can manage them within the school environment. The findings indicate that intolerance of uncertainty is a crucial factor in emotional management at school, and a deeper understanding of anxiety can have a positive impact on autistic students in their lives and education.	Autistic teenagers in middle school.
23	Eyuboglu et al, (2021)	This research found that both traditional bullying and cyberbullying are associated with increased risks of depression, anxiety, psychosocial difficulties, low self-esteem, and self-harm behaviors. Perpetrators of traditional bullying and victims-perpetrators of cyberbullying have the highest risk of engaging in self-harm behaviors. These findings underscore the importance of effective interventions to mitigate the negative impacts of bullying on students' mental health.	6,202 students in Turkey.
24	Gong et al, (2022)	This research found that there is a relationship between involvement in school bullying and levels of anxiety in children and adolescents. Both being a victim and a perpetrator of bullying are associated with higher levels of anxiety. Furthermore, there is a dose-response pattern indicating that the more types of bullying someone experiences, the higher their level of anxiety tends to be. These findings highlight the importance of addressing the role of bullying in schools in managing anxiety issues among children and adolescents.	High school students in an ethnic autonomous region in China
25	Erden& Aliyev (2023)	This study examines the relationship between anxiety and psychological needs among high school students during the COVID-19 pandemic. Involving 502 students for quantitative data and 29 students for qualitative data, the research employed a triangulation design using Multiple Linear Regression and content analysis. Findings indicate that the fulfillment of basic psychological needs such as love, belongingness, and competence is negatively associated with anxiety, while the need for autonomy shows minimal impact. The study concludes that meeting psychological needs can reduce student anxiety, including academic pressure, and recommends interventions to address these needs during crises.	502 high school students in Southeast Turkey.

4. Discussion

Academic anxiety is a complex phenomenon and is influenced by various factors that vary across the globe. Based on the data outlined in the table, the factors that often cause academic anxiety include academic stress, low self-efficacy, gender, and the COVID-19 pandemic.

Academic stress is one of the main factors contributing to academic anxiety in different countries. For example, Michaela et al. (2020) found that high academic stress in students can reduce their quality of life and well-being, and increase the risk of mental health problems such as anxiety and depression. This was also revealed by Gao X. (2023), who showed that academic anxiety plays a role as a mediator between academic stress and burnout, indicating the widespread impact of stress on students' mental health and academic performance.

Low self-efficacy was also found to be a significant factor affecting academic anxiety. Wuthrich et al. (2021) and Fiorilli et al. (2020) noted that low emotional and academic self-efficacy is associated with increased anxiety and depression. Poursaberi et al (2023) in their study in Iran revealed that low

academic self-efficacy was significantly negatively associated with school anxiety, explaining 56.5% of the variability in anxiety among junior high school students.

Gender differences are also an important factor in academic anxiety, with some studies showing that females tend to have higher levels of anxiety than males. Rakhmanov et al (2020) and Alazzam et al (2021) found that female students experienced higher levels of test anxiety and depression than male students, both during normal times and during the COVID-19 pandemic.

The COVID-19 pandemic has exacerbated the problem of academic anxiety in many countries. Giannopoulou et al (2021) in Greece and Chengqi et al (2022) in China reported that the pandemic and lockdown significantly increased levels of anxiety and depression among students. Radwan et al (2021) also found high levels of anxiety during the pandemic in the Gaza Strip, Palestine. Additionally, Alazzam et al (2021) highlighted that during the pandemic, two-thirds of students experienced symptoms of depression and anxiety, with factors such as parental education and difficulties in online education acting as the main predictors.

Other factors such as bullying and technology use also contribute to academic anxiety. Eyuboglu et al (2021) and Gong et al (2022) showed that involvement in bullying at school was associated with an increased risk of anxiety and other mental health problems. Technology use before bedtime was also found to affect sleep quality and anxiety levels, as reported by Xiaoning et al (2021).

5. Conclusion

In this study, which reviewed 25 journals published from 2018 to 2023, several key factors that contribute to academic anxiety were identified. These factors include the impact of the COVID-19 pandemic forcing people to study from home online, experiences of bullying and peer pressure, students' low confidence in learning maths, the economic impact of parental income, women's tendency to be more prone to academic anxiety than men, difficulties in managing emotions and the process of self-discovery, internet addiction, fear of solitude or monophobia, and lack of self-confidence in adolescence. This understanding can help in designing effective strategies and interventions to reduce academic anxiety among students.

References

A, D M., Rosyidawati, N H., Sudrajat, A A., Khairunnisa, N H., Rahmawati, B D Z., Khatimah, W H., Apriyani, P., Andriani, A P D., Widyastuti, P A., Suryani, D S., Azizah, P F S N., &Yuniasih, D. (2021). Anxiety of Final Semester Students: Mini Review. Ahmad Dahlan Medical Journal, 2(2), 85-92. https://doi.org/10.12928/admj.v2i2.5432

Afifah, R., &Pangestu, A B. (2021). Relationship of Academic Self-Management and Academic Anxiety Towards Academic Achievement of First Year Students InInstitutTeknologi Bandung. https://jurnal.syntax-idea.co.id/index.php/syntax-idea/article/download/1415/871

AlAzzam, M., Abuhammad, S., Abdalrahim, A., & Hamdan-Mansour, A. M. (2021). Predictors of Depression and Anxiety Among Senior High School Students During COVID-19 Pandemic: The Context of Home Quarantine and Online Education. The Journal of school nursing : the official publication of the National Association of School Nurses, 37(4), 241–248. <u>https://doi.org/10.1177/1059840520988548</u>

Alfonso, S V., &Lonigan, C J. (2021). Trait anxiety and adolescent's academic achievement: The role of executive function. Learning and Individual Differences, 85, 101941-101941. https://doi.org/10.1016/j.lindif.2020.101941

Azizi, Z., Rezai, A., Namaziandost, E., & Ahmad Tilwani, S. (2022). The Role of Computer Self-Efficacy in High School Students' E-Learning Anxiety: A Mixed-Methods Study. Contemporary Educational Technology, 14(2), ep356. <u>https://doi.org/10.30935/cedtech/11570</u>

Bandura, A. (1993). Perceived Self-Efficacy in Cognitive Development and Functioning. Educational Psychologist, 28(2), 117148. https://doi.org/10.1207/s15326985ep2802_3

Camacho, A., Correia, N., Zaccoletti, S., & Daniel, J R. (2021). Anxiety and Social Support as Predictors of Student Academic Motivation During the COVID-19. Frontiers in Psychology, 12. https://doi.org/10.3389/fpsyg.2021.644338

Cao, Chengqi& Wang, Li & Fang, Ruojiao& Liu, Ping & Bi, Yajie& Luo, Shu & Grace, Emma &Olff, Miranda. (2021). Anxiety, Depression, and PTSD Symptoms Among High School Students in China in Response to the COVID-19 Pandemic and Lockdown. Journal of Affective Disorders. 296. 10.1016/j.jad.2021.09.052.

Carey E, Devine A, Hill F, Szűcs D (2017) Differentiating anxiety forms and their role in academic performance from primary to secondary school. PLoS ONE 12(3): e0174418. <u>https://doi.org/10.1371/journal.pone.0174418</u>

Carter, S., Andersen, C., &Abawi L, A. (2023). In Sync: Inclusive school communities supporting students with anxiety. Heliyon, 9 (6), pp.1-15 https://doi.org/10.1016/j.heliyon.2023.e16447

Chengqi, Cao, Wang, L., Fang, R., Liu, P., Bi, Y., Luo, S., Grace, E., &Olff, M. (2022). Anxiety, depression, and PTSD symptoms among high school students in china in response to the COVID-19 pandemic and lockdown. Journal of affective disorders, 296, 126–129. https://doi.org/10.1016/j.jad.2021.09.052 Costley, Debra, Anne Emerson, Danielle Ropar, and Elizabeth Sheppard. 2021. "The Anxiety Caused by Secondary Schools for Autistic Adolescents: In Their Own Words" Education Sciences 11, no. 11: 726. https://doi.org/10.3390/educsci11110726

Dacholfany, M I., W, B R., Havidotinnisa, S., & Harini, H. (2023). Classroom Management and Teacher Interaction can reduce student anviety level. JurnalKonseling Pendidikan Islam, 4(2), 219-226. https://doi.org/10.32806/jkpi.v4i2.1

Debra & Costley, Emerson, Anne & Ropar, Danielle & Sheppard, Elizabeth. (2021). The Anxiety Caused by Secondary Schools for Autistic Adolescents: In Their Own Words. Education Sciences. 11. 726. 10.3390/educsci11110726.

Dorčić, T. M., Živčić-Bećirević, I., & Smojver-Ažić, S. (2023). Anxiety in early adolescents during the Covid-19 pandemic: The role of intolerance of uncertainty and cognitive emotion regulation. European Journal of Psychology Open, 82(2), 45–55. <u>https://doi.org/10.1024/2673-8627/a000035</u>

Duckworth, A., Taxer, J L., Eskreis-Winkler, L., Galla, B M., & Gross, J J. (2019). Self Control and Academic Achievement. Annual Review of Psychology, 70(1), 373-399. <u>https://doi.org/10.1146/annurev-psych-010418-103230</u>

Erden, Z. Ş., & Aliyev, R. (2022). Anxiety and psychological needs of high school students: COVID-19 period. Psychology in the schools, 10.1002/pits.22767. Advance online publication. <u>https://doi.org/10.1002/pits.22767</u>

Eyuboglu, M., Eyuboglu, D., Pala, S. C., Oktar, D., Demirtas, Z., Arslantas, D., &Unsal, A. (2021). Traditional school bullying and cyberbullying: Prevalence, the effect on mental health problems and self-harm behavior. Psychiatry research, 297, 113730. https://doi.org/10.1016/j.psychres.2021.113730

Fiorilli, C., Farina, E., Buonomo, I., Costa, S., Romano, L., Larcan, R., &Petrides, K. V. (2020). Trait Emotional Intelligence and School Burnout: The Mediating Role of Resilience and Academic Anxiety in High School. International journal of environmental research and public health, 17(9), 3058. https://doi.org/10.3390/ijerph17093058

Florence Gabriel, (2022), Maths Anxiety – And How to Overcome it, Significance, Volume 19, Issue 1, February, Pages 34–35, https://doi.org/10.1111/1740-9713.01612

Gao X. (2023). Academic stress and academic burnout in adolescents: a moderated mediating model. Frontiers in psychology, 14, 1133706. https://doi.org/10.3389/fpsyg.2023.1133706

Giannopoulou, I., Efstathiou, V., Triantafyllou, G., Korkoliakou, P., &Douzenis, A. (2021). Adding stress to the stressed: Senior high school students' mental health amidst the COVID-19 nationwide lockdown in Greece. Psychiatry research, 295, 113560. <u>https://doi.org/10.1016/j.psychres.2020.113560</u>

Gong, Z., Reinhardt, J. D., Han, Z., Ba, Z., & Lei, S. (2022). Associations between school bullying and anxiety in children and adolescents from an ethnic autonomous county in China. Psychiatry research, 314, 114649. <u>https://doi.org/10.1016/j.psychres.2022.114649</u>

Green, J., Comer, J S., Donaldson, A R., Elkins, R M., Nadeau, M S., Reid, G., & Pincus, D B. (2016). School Functioning and Use of School-Based Accommodations by Treatment-Seeking Anxious Children. Journal of Emotional and Behavioral Disorders, 25(4), 220-232. https://doi.org/10.1177/1063426616664328

Gulati, Daman Deep &Bakliwal, Mamta. (2023). Internet addiction and level of anxiety among school students. Journal Human Research in Rehabilitation. 13. 62-68. 10.21554/hrr.042307.

Gulati, Daman Deep &Bakliwal, Mamta. (2023). Internet addiction and level of anxiety among school students. Journal Human Research in Rehabilitation. 13. 62-68. 10.21554/hrr.042307

Guo, Z., Zhang, Q., & Ran, G. (2023). The association between academic stress and test anxiety in college students: The mediating role of regulatory emotional self-efficacy and the moderating role of parental expectations. Frontiers in Psychology, 14. https://doi.org/10.3389/fpsyg.2023.1008679

Gürbüz, Cem&Cabaroglu, Nese. (2021). EFL students' perceptions of oral presentations: Implications for motivation, language ability and speech anxiety. Journal of Language and Linguistic Studies. 17. 600-614. 10.52462/jlls.41.

Huberty, T J. (1990). Reducing Academic Related Anxiety. Special services in the schools, 5(3-4), 261-276. https://doi.org/10.1300/j008v05n03_14

Ji, J., Porto, M D., & Gil, S. (2022). Correlating Anxiety and Risk Perceptions of Future Academic Prospects Among High-Achieving Students. https://doi.org/10.47611/jsrhs.v11i1.2418

Kambuga, Y. (2016). Anxiety and Academic Performance among Secondary School Pupils in Tanzania. https://journaljesbs.com/index.php/JESBS/article/view/292

Kuty-Pachecka, Marta &Kozlowska, Monika &Skórska, Karolina &Gucwa, Katarzyna &Trzebińska, Magdalena &Stępień-Grzelak, Patrycja &Żurawska, Ewa. (2020). Anxiety, depression and health locus of control in secondary school students during the COVID-19 pandemic. PsychiatriaiPsychologiaKliniczna. 20. 219-233. 10.15557/PiPK.2020.0029.

Lee, M., Lee, M K., Yaung, H., Lee, T R., & Lee, S M. (2022). Academic Hatred: Focusing on the Influence of a Supportive Classroom Climate. https://doi.org/10.1177/21582440221094820 Lin, Y., Mutz, J., Clough, P., & Papageorgiou, K A. (2017). Mental Toughness and Individual Differences in Learning, Educational and Work Performance, Psychological Well-being, and Personality: A Systematic Review. https://doi.org/10.3389/fpsyg.2017.01345

Michaela C. Pascoe, Sarah E. Hetrick & Alexandra G. Parker (2020) The impact of stress on students in secondary school and higher education, International Journal of Adolescence and Youth, 25:1, 104-112, DOI: 10.1080/02673843.2019.1596823: https://doi.org/10.1080/02673843.2019.1596823

Mukholil, M. (2018). Kecemasandalam proses belajar. Eksponen, 8(1), 1-8. https://doi.org/10.47637/eksponen.v8i1.135

Nasir, M. (2023). Predictive Value of Academic Anxiety for Academic Achievement of University Students. http://journal.aiou.edu.pk/pjeojs/index.php/PJE/article/viewFile/672/pdf

Ng, Phan & Dung, Vu & Nguyet, Le & Linh, Vu & Thuy, Hoang &Tinh, Nguyen. (2020). Academic Anxiety of Vietnamese Secondary School Students as a Reason for Applying Online Learning. Journal of Intellectual Disability - Diagnosis and Treatment. 8. 730-739. 10.6000/2292-2598.2020.08.04.16

Niraj. (2020). Academic Anxiety towards Academic Achievement among Secondary School Students: A Psychological Study of Samastipur District, India. <u>https://doi.org/10.36349/easjpbs.2020.v02i06.002</u>

Novinta, D N., &Mastuti, E. (2023). Can Rational-Emotive Behavior Therapy (REBT) Reduce Academic Anxiety in High School Students?.Psikostudia: JurnalPsikologi, 12(1), 123-123. <u>https://doi.org/10.30872/psikostudia.v12i1.9787</u>

Okigbo, E &Odiri E., Onoshakpokaiye. (2023). Relationship Between Test Anxiety and Academic Performance of Secondary School Students in Mathematics. Mathematics Education Journals 7. 178-189. 10.22219/mej.v7i1.28070

Passiatore, Y., Pirchio, S., Oliva, C., Panno, A., & Carrus, G. (2019). Self-efficacy and Anxiety in Learning English as a Foreign Language: Singing in Class Helps Speaking Performance. Journal of Educational, Cultural and Psychological Studies (ECPS Journal), 0(20), 121-138. doi:https://doi.org/10.7358/ecps-2019-020-passi

Pascoe, M. C., Hetrick, S. E., & Parker, A. G. (2019). The impact of stress on students in secondary school and higher education. International Journal of Adolescence and Youth, 25(1), 104–112. <u>https://doi.org/10.1080/02673843.2019.1596823</u>

Permatasari, N S A., &Prasetyawati, W. (2023). Efforts to Overcome Adolescent Academic Anxiety through Intervention Programs with a Cognitive-Behavioral Therapy Approach. <u>https://ejournal.undiksha.ac.id/index.php/bisma/article/download/58382/26649</u>

Radwan, E., Radwan, A., Radwan, W., & Pandey, D. (2021). Prevalence of depression, anxiety and stress during the COVID-19 pandemic: a cross-sectional study among Palestinian students (10-18 years). BMC psychology, 9(1), 187. <u>https://doi.org/10.1186/s40359-021-00688-2</u>

Ragusa, A., González-Bernal, J., Trigueros, R., Caggiano, V., Navarro, N., Minguez-Minguez, L. A., Obregón, A. I., & Fernandez-Ortega, C. (2023). Effects of academic self-regulation on procrastination, academic stress and anxiety, resilience and academic performance in a sample of Spanish secondary school students. Frontiers in psychology, 14, 1073529. <u>https://doi.org/10.3389/fpsyg.2023.1073529</u>

Rakhmanov, Ochilbek& Dane, Senol. (2020). The Effects of COVID-19 Pandemic on Anxiety in Secondary School Students. Journal of Research in Medical and Dental Science. 8. 186-190.

Ramirez, G., Hooper, S. Y., Kersting, N. B., Ferguson, R., & Yeager, D. (2018). Teacher Math Anxiety Relates to Adolescent Students' Math Achievement. AERA Open, 4(1). <u>https://doi.org/10.1177/2332858418756052</u>

Rathod, R., & Chauhan, D. (2023). Academic Anxiety among Primary School Students. <u>https://journal-gehu.com/index.php/gehu/article/download/91/174</u>

Rusuli, I. (2022). Psikososialremaja: sebuahsintesateorierickeriksondengankonsepislam. https://doi.org/10.37249/assalam.v6i1.384

Sá, A R D., Andrade, A G D., Andrade, L H., Gorenstein, C., & Wang, Y. (2018). Response pattern of depressive symptoms among college students: What lies behind items of the Beck Depression Inventory-II?.<u>https://doi.org/10.1016/j.jad.2018.02.064</u>

Suzuki, Y., Ikeda, A., Maruyama, K., Sakamoto, N., Wada, H., &Tanigawa, T. (2020). The association between obesity and hyperactivity/anxiety among elementary school students in Japan. International journal of behavioral medicine, 27(1), 79–86. <u>https://doi.org/10.1007/s12529-019-09827-x</u>

Tang, Y., & He, W. (2023). Meta-analysis of the relationship between university students' anxiety and academic performance during the coronavirus disease 2019 pandemic. Frontiers in Psychology, 14. <u>https://doi.org/10.3389/fpsyg.2023.1018558</u>

Taty, T. (2020). Analysis of learning anxiety among senior high school students. https://doi.org/10.23916/0020200526720

Tingting Gao, Zeying Qin, Yueyang Hu, Junsong Fei, Ruilin Cao, Leilei Liang, Chuanen Li, Songli Mei, Xiangfei Meng, (2021) Trajectories of depression and anxiety in Chinese high school freshmen: Associations with Internet addiction, Journal of Affective Disorders, Volume 286, Pages 180-186, ISSN 0165-0327, https://doi.org/10.1016/j.jad.2021.02.074.

Türkmenoğlu, M., &Yurtal, F. (2020). An Investigation of Elementary School Students' Anxiety Levels Toward Mathematics and Their Perceptions of Self-Efficacy. Cukurova University Faculty of Education Journal, 49(2), 628-650. <u>https://doi.org/10.14812/cuefd.733968</u>

Ugwuanyi CS, Ede MO, Onyishi CN, Ossai OV, Nwokenna EN, Obikwelu LC, Ikechukwu-Ilomuanya A, Amoke CV, Okeke AO, Ene CU, Offordile EE, Ozoemena LC, Nweke ML. (2020) Effect of cognitive-behavioral therapy with music therapy in reducing physics test anxiety among students as measured by generalized test anxiety scale. Medicine (Baltimore). Apr;99(17):e16406. doi: 10.1097/MD.000000000016406. PMID:

Viviana M. Wuthrich, Jessica Belcher, Chris Kilby, Tess Jagiello, Catherine Lowe, (2021), Tracking stress, depression, and anxiety across the final year of secondary school: A longitudinal study, Journal of School Psychology, Volume 88, Pages 18-30, ISSN 0022-4405, https://doi.org/10.1016/j.jsp.2021.07.004

Wen, X., Lin, Y., Liu, Y., Starcevich, K., Fang, Y., Wang, X., Xie, X., & Yuan, Z. (2020). A Latent Profile Analysis of Anxiety among Junior High School Students in Less Developed Rural Regions of China. https://doi.org/10.3390/ijerph17114079

Widodo, D., &Alizamar, A. (2019). Relationship between academic anxiety and cheating behavior on students in SMPN 4 Padang. http://neo.ppj.unp.ac.id/index.php/neo/article/download/162/113

Wuthrich, V. M., Belcher, J., Kilby, C., Jagiello, T., & Lowe, C. (2021). Tracking stress, depression, and anxiety across the final year of secondary school: A longitudinal study. Journal of school psychology, 88, 18–30. <u>https://doi.org/10.1016/j.jsp.2021.07.004</u>

Xiaoning ,Zhang,, Dimitriou, D., & Halstead, E. J. (2021). Sleep, Anxiety, and Academic Performance: A Study of Adolescents From Public High Schools in China. Frontiers in psychology, 12, 678839. <u>https://doi.org/10.3389/fpsyg.2021.678839</u>

Yakşi. N., Eroğlu, M. &Özdemir, M. (2021). Covid-19: Predictors of Depression and AnxietyAmong High School Students. Cyprus Turkish Journal of Psychiatry & Psychology Vol.3 Issue.3 Doi:10.35365/ctjpp.21.3.20

Yin, O., Parikka, N., Ma, A., Kreniske, P., & Mellins, C. A. (2022). Persistent anxiety among high school students: Survey results from the second year of the COVID pandemic. PloS one, 17(9), e0275292. https://doi.org/10.1371/journal.pone.0275292

Zhang X, Dimitriou D and Halstead EJ (2021) Sleep, Anxiety, and Academic Performance: A Study of Adolescents From Public High Schools in China. Front. Psychol. 12:678839. doi: 10.3389/fpsyg.2021.678839