RedFame

Journal of Education and Training Studies
Vol. 10, No. 4; October 2022
ISSN 2324-805X E-ISSN 2324-8068
Published by Redfame Publishing
URL: http://jets.redfame.com

Evaluation of an Adapted Version of the Screen for Child Anxiety Related Emotional Disorders for Secondary School Students

Victor Martinelli[1], Cristina Gatt[1]

[1]Department of Education Studies, Faculty of Education, University of Malta, Msida, Malta

Correspondence: Victor Martinelli, Department of Education Studies, Faculty of Education, University of Malta, Msida, Malta.

Received: July 4, 2022 Accepted: August 28, 2022 Online Published: August 30, 2022

doi:10.11114/jets.v10i4.5701 URL: https://doi.org/10.11114/jets.v10i4.5701

Abstract

Anxiety is one of adolescents' most frequently experienced mental health issues, but this issue often remains undetected or misdiagnosed. One of the reasons for this is the lack of reliable instruments for screening anxiety disorders among adolescents. For this study, the SCARED scale was translated and adapted to a population of 11 to 15-year-old secondary school students attending church schools in Malta. Based on responses from 120 students, our study found that female students were significantly more prone to developing anxiety than their male counterparts. The study also found that anxiety increases with age. Like several other evaluation studies, our analysis provided a slightly different structure of the scale than the original study suggesting a four rather than a five-factor scale structure. However, the study results were mainly consistent with the findings from most previous studies about the anxiety levels experienced by secondary school students. In addition, the metric characteristics of the scale in our study were satisfactory. Overall, our study found that the SCARED scale could be used routinely to screen and monitor anxiety among secondary school students.

Keywords: adolescents, anxiety, screening, SCARED scale, gender differences, age differences

1. Introduction

Mental health is a significant personal and social issue affecting students' well-being, functioning, and social adaptation. Anxiety is one of the most prevalent mental disorders experienced by young people (OECD/EU, 2018) that often leads to students experiencing difficulties in education and employing inadequate coping strategies, such as resorting to substance abuse (Allen, Benningfield, & Blackford, 2020). Furthermore, epidemiologic studies demonstrate that anxiety disorders are the most common mental disorders in the general population (Alonso & Lepine, 2007; Tang, Tang, Ren, & Wong, 2019; Yang et al., 2021). In the European Union, approximately twenty-five million people of all ages live with an anxiety disorder (OECD/EU, 2018). In addition, anxiety disorders are among the most common mental health issues affecting secondary school students (Allen et al., 2020; Tramonte & Willms, 2010; Putwain & Daly, 2014; Tang et al., 2019).

Research shows that mental health disorders usually emerge during adolescence, with anxiety disorders affecting approximately one in four adolescents (Casey & Lee, 2015). Such conditions negatively impact students' educational achievement and social adaptation (Kitchener, Jorm, Kelly, & Richmond Foundation Malta, 2018). Research also shows that mild anxiety can be beneficial as long as it does not interfere with day-to-day functioning and the body does not continue to activate the fight-or-flight response in the face of actual or perceived threats (Brahmbhatt, Richardson, & Prajapati, 2021). However, when anxiety increases above an optimal level of intensity, it prevents students from fulfilling their usual daily activities, such as functioning in school (Monga & Benoit, 2018).

Anxiety as a psychophysiological state and a personality trait (Pacheco-Unguetti, Acosta, Callejas, & Lupiáñez, 2010) also affects adolescents' physical health and well-being. Adolescents who experience high trait anxiety tend to view the world as a dangerous and threatening place (Spielberger, 1972), often develop permanent generalised anxiety (Öhman, 2008), and experience persistent excessive fear and worry about different situations (Connolly et al., 2007). High levels of anxiety negatively affect children's well-being and, in extreme cases, lead to "related behavioural disturbance" (American Psychiatric Association, DSM-5, 2013, p. 189) that impairs students' performance, social life, and well-being (Mazzone et al., 2007). In addition, adolescents with anxiety disorders are at an increased risk of developing major depression, alcohol and illicit drug dependence, suicidal behaviour, and early parenthood (Woodward & Fergusson, 2001).

The literature also shows that adolescents with poorer academic performance experience higher stress levels than those

with higher performance (Pascoe, Hetrick, & Parker, 2020). Students who experience higher levels of anxiety are also at risk of underachieving, truancy and dropping out of school, but some studies reported contradictory findings (Owens, Stevenson, Hadwin, & Norgate, 2014; Van Ameringen, Mancini, & Farvolden, 2003; Finning et al., 2019). Despite some inconsistent or contradictory findings, most research studies suggest that unexcused absences (truancy) and school refusal are associated with students' higher anxiety (Finning et al., 2019).

Regarding the risk of developing anxiety disorders, many studies demonstrate that female students experience anxiety disorders more frequently than their male counterparts (Hill et al., 2016; OECD, 2017; Putwain & Daly, 2014; Tang et al., 2019; Tramonte & Willms, 2010; Gauci, England, & Calleja, 2018). Similarly, Hale III, Crocetti, Raaijmakers, & Meeus (2011), Kaajalaakso et al. (2020), Muris, Schmidt, Engelbrecht, & Perold (2002), and Su, Wang, Fan, Su, & Gao (2008) found that girls experience higher anxiety levels than boys. Hale et al. (2011) suggested that the increased age of students could moderate these sex differences, but Leikanger, Ingul, & Larsson (2012) suggested otherwise. Also, some studies (e.g. Muris et al., 2002) indicated that anxiety declines with age, but several other studies (e.g., Putwain & Daly, 2014; Su et al., 2008; Tang et al., 2019; Tramonte & Willms, 2010) did not confirm this finding.

Research shows that anxiety among secondary school students often remains undiagnosed (Tomb & Hunter, 2004) or misunderstood, leading to severe individual and social consequences (La Vonne, Zun, & Burke, 2012). Research indicates that periodic screening for anxiety can help educators identify students needing support or professional intervention (Bruhn, Woods-Groves, & Huddle, 2014). Such self-rating scales that screen for adolescent anxiety can contribute to the identification of students with anxiety and those who may need additional assessments and/or treatments (Vasey & Lonigan, 2000; Kendall & Flannery-Schroeder, 1998; Chisholm et al., 2016). If required, due to the limited sensitivity, additional well-established and reliable clinical diagnostic procedures will eliminate false-positive cases (Kendall & Flannery-Schroeder, 1998; Phillips, Lonigan, Driscoll, & Hooe, 2002; Vasey & Lonigan, 2000).

Since many anxiety disorders are under-diagnosed or misdiagnosed (Tomb & Hunter, 2004), the early identification and treatment of anxiety disorders in youth are crucial for the organisation of timely interventions, the improvement of adolescents' functioning and related well-being (Mychailyszyn et al., 2011). The Screen for Child Anxiety Related Emotional Disorders - SCARED (Birmaher et al., 1997) is considered a valuable instrument for practitioners despite some identified limitations (Behrens, Swetlitz, Pine, & Pagliaccio, 2019; Pereira et al., 2015). Since the perception of anxiety is likely influenced by cultural factors (Muris et al., 2002; Ang, 2020), applying a new instrument in a country always requires validating such instruments for the national population.

The DSM-IV (American Psychiatric Association, 1994) classification of anxiety disorders recognised the following constructs in children's and adolescents' anxiety disorders: separation anxiety disorder, generalized anxiety disorder, panic disorder, social phobia, specific phobia, obsessive-compulsive disorder, and posttraumatic stress disorder (Muris et al. 2002). The SCARED scale (Birmaher et al., 1997) reflects the following five specific anxiety disorders: somatic/panic, generalized anxiety, separation anxiety, social phobia, and school phobia. Both child and the parent scales yielded identical five-factor solutions, but later studies (Ang, 2020; Vigil-Colet et al., 2009) questioned the robustness of the school phobia or school avoidance factor.

The SCARED scale has been used widely in several countries and cultures other than where it was first normed. These include Brazil (Desousa, Salum, Isolan, & Manfro, 2013; Isolan, Salum, Osowski, Amaro, & Manfro, 2011), Canada (Martin & Gosselin, 2012), Cyprus (Essau et al., 2013), Finland (Kaajalaakso et al., 2020), Iceland (Olason, Sighvatsson, & Smári, 2004), Iran (Dehghani, Amiri, Molavi, & Neshat-Doost, 2013), Italy (Crocetti, Hale III, Fermani, Raaijmakers, & Meeus, 2009), Malaysia (Ang, 2020), Saudi Arabia/Lebanon (Arab, El Keshky, & Hadwin, 2016; Hariz et al., 2013), South Africa and the Netherlands (Muris et al., 2002), Spain (Hale et al., 2013), and Sweden (Ivarsson, Skarphedinsson, Andersson, & Jarbin, 2018) among others.

Generally, there is limited epidemiological data available in Malta concerning the mental health status of children and adolescents (Rampazzo et al., 2016). Studies about the incidence of anxiety use different measures and report significant variations in the incidence of anxiety among adolescents in Malta. While some studies found a very high incidence of anxiety-related problems (Inchley et al., 2020), other studies reported a surprisingly low incidence of anxiety among children in Malta (e.g. Gauci et al., 2018). Due to such inconsistency in research findings, one of the objectives of this study is to obtain reliable estimates of anxiety among secondary school students and evaluate the SCARED scale, a well-established and widely used instrument for screening anxiety and anxiety disorders among adolescents.

Research provides evidence that the high incidence of anxiety symptoms among secondary school students often remains undiagnosed (Tomb & Hunter, 2004) or misunderstood (La Vonne et al., 2012). Since school counsellors need reliable and cost-effective instruments for screening and monitoring elevated anxiety levels, this study aims to examine the metric characteristics of the SCARED scale and evaluate its applicability in the local setting. A reliable and

cost-effective scale for screening anxiety in the population of secondary school students contributes to the early identification and treatment of anxiety-related issues. Consequently, the specific objectives of this study were to examine the structure and estimate the SCARED scale's internal consistency.

In sum, the first objective of this study was to evaluate a translated and adapted form of the SCARED and to estimate the incidence of anxiety disorders among secondary school students. Since several research studies indicate inconsistent findings regarding anxiety, gender differences, and the age of students (e.g., Muris et al., 2002, and Su et al., 2008), the second objective of our study was to examine the gender- and age-related differences regarding the level of anxiety of secondary school students. The third objective of our study was to examine the relationships between students' anxiety levels, absenteeism and school achievement because the literature shows that increased anxiety interferes with students' daily life and school activities (Finning et al., 2019; Monga & Benoit, 2018).

2. Method

2.1 Participants

The study applied a cross-sectional approach using an online form of the SCARED scale to examine the incidence of school anxiety in secondary school students attending church schools in Malta. According to the latest available data, more than a quarter (28.3%) of students attended church schools in Malta during the 2018-2019 scholastic year (National Statistics Office, 2021). Ethical approval for this study was obtained from the institutional research ethics committee. The school administrators granted permission for this study, and consent was sought from each participant's parent/s or guardian/s. Students between the ages of 11 and 14 were invited to participate in this voluntarily by completing the online SCARED scale. About 500 students were invited to participate, and 120 opted to participate in this study, as shown in Table 1.

Table 1. Participation by age and gender

	Gender		
Age in years	Male	Female	Total
11-12	33	9	43
13-14	45	33	78
Total	78	42	120

2.2 Measures and Indicators of Anxiety

The *Screen for Child Anxiety Related Emotional Disorders* – SCARED scale (Birmaher et al., 1997) was employed to examine students' anxiety in this study. It is one of the most commonly used self-report scales for assessing anxiety in young people. In addition, this scale is a helpful anxiety screener compatible with the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) (Runyon, Chesnut, & Burley, 2018). The SCARED scale demonstrated high internal consistency of the full scale and most of the five constituent subscales. In addition to generally excellent internal consistency (.90), the version of the SCARED scale used in this study (Birmaher et al., 1999) also has excellent test-retest reliability (Runyon et al., 2018). The evaluations of the SCARED scale also found good validity, reliability, and sensitivity to change (Behrens et al., 2019; Early Intervention Foundation, 2020) and is the widely recommended version for use in research (Hale et al., 2011).

The SCARED scale measures five anxiety disorder dimensions, including Generalized Anxiety Disorder (9 items), Panic Disorder (13 items), Separation Anxiety Disorder (8 items), Social Anxiety Disorder (7 items), and Significant School Avoidance (4 items). For this study, the authors translated the 1999 English version of the SCARED 41-item questionnaire (Birmaher et al., 1999) using the back-translation method, including some minor modifications to mitigate cultural differences in students' use of vocabulary. The English version of SCARED scale was translated to Maltese by a Maltese language expert to compare the two versions for accuracy, and this Maltese version was back-translated to English. The content of the final translated version was examined to ensure that the meaning of the questions was consistent with the original English version. The back-translated version was almost identical to the original SCARED scale. No items were eliminated or significantly changed during the translation process. The SCARED scale included 41 items (e.g. "When I feel frightened, it is hard to breathe" and "I get headaches when I am at school". All items were originally scaled on a three-point Likert-like scale, starting with 0 "not true or hardly ever true", 1 "somewhat true or sometimes true", and ending in 2 "very true or often true", with higher numbers indicating a higher level of anxiety. The possible score was in the range of 0 to 82. The total students' scores equal to or greater than 31 were recommended as a criterion for identifying elevated anxiety levels (Birmaher et al., 1999).

2.3 Data Analysis

The study used exploratory factor analysis to determine the factor structure of the observed variables. The internal consistency of the scale and its subscales were determined by Cronbach's alpha coefficients (Field, 2009; Cortina, 1993) which confirmed the suitability of the collected Likert-type data for analysis (Gliem & Gliem, 2003). The McDonald's omega coefficient was also used as an alternative measure of internal consistency. Following this, exploratory techniques (percentages, means and standard deviations) were used to describe the extent of students' anxiety. The analysis also included inferential statistical procedures (Kruskal-Wallis and Mann-Whitney U tests) to compare the levels of reported classroom anxiety among students in different years of schooling and of different genders. Parametric equivalent measures (t-test and analysis of variance) were also conducted since students' responses were normally distributed. The statistical analyses were conducted using the SPSS package (IBM SPSS Statistics, IBM Corp., USA) and the jamovi package (The jamovi project, 2019) for the exploratory factor analysis.

3. Results

The initial screening of the collected data identified no outliers among the students' responses. Skewness (.169) and kurtosis (-.64) coefficients were in the range which is considered acceptable and indicates the normal univariate distribution of anxiety scores (Hair, Black, Babin, & Anderson, 2010; Bryne, 2010). The inspection of the quantile-quantile (Q-Q) plots and the histograms also indicated the normality of the distribution of SCARED scores. The assumption of multivariate normality was also confirmed by the Shapiro-Wilk test, which indicated no differences in the normality of the distribution of the overall score ($W = .979$, $p = .060$).

3.1 Factor Structure and Internal Consistency of the SCARED Scale

The application of exploratory factor analysis was appropriate for the factorisation of the scale since the Kaiser-Meyer-Olkin measure of sampling adequacy was .846, which is meritorious (Kaiser, 1974). In addition, Bartlett's test of sphericity was significant ($\chi^2 = 2791$, $p < .001$) and indicated that the correlation matrix was suitable for factorisation. Factorisation of the 41 items of the SCARED scale using the principal axis factoring extraction method and screeplot (Figure 1) from the parallel analysis for determining the number of factors identified a four-factor solution with all factors having an eigenvalue of 1 or above and the first factor explaining the highest percentage of variance with an eigenvalue of 11.92. The oblique (oblimin) rotation method provided a good solution (Table 2).

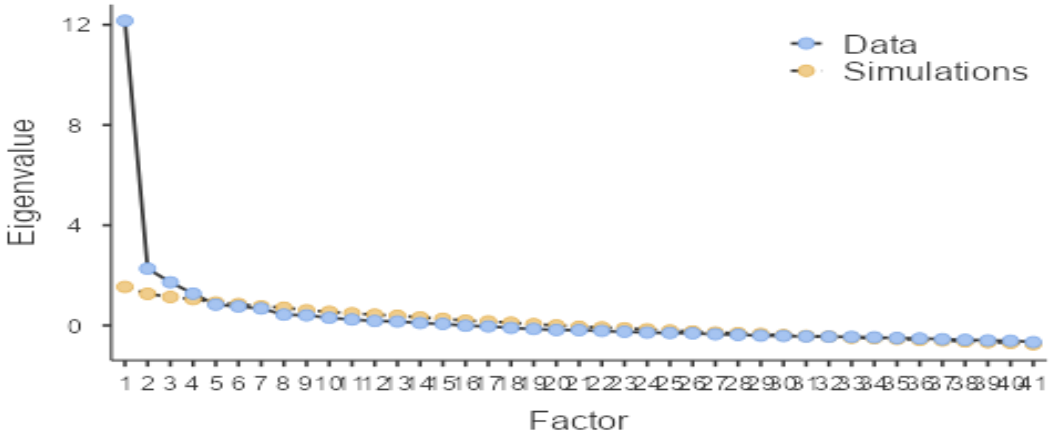

Figure 1. Screeplot SCARED EFA

Table 2. Principal Axis Factoring with an oblique (oblimin) rotation

Factor Loadings					
	Factors				
	1	2	3	4	Uniqueness
Eigenvalues	11.92	2.23	1.72	1.24	
38. When I get frightened, I feel dizzy. (PN)	0.755				0.388
6. When I get frightened, I feel like passing out. (PN)	0.704				0.536
1. When I feel frightened, it is hard to breathe (PN)	0.694				0.564
36. I am scared to go to school. (SH)	0.623				0.53
34. When I get frightened, I feel like throwing up. (PN)	0.607				0.609
19. I get shaky. (PN)	0.574				0.492
15. When I get frightened, I feel like things are not real. (PN)	0.573				0.565
17. I worry about going to school. (SH)	0.562				0.502
11. I get stomach aches at school. (SH)	0.513				0.674
12. When I get frightened, I feel like I am going crazy. (PN)	0.484				0.605
30. I am afraid of having anxiety (or panic) attacks. (PN)	0.481				0.495
9. People tell me that I look nervous. (PN)	0.441	0.409			0.587
7. I am nervous. (GD)	0.437				0.61
39. I feel nervous when I am with other children or adults and I have to do something while they watch me (for example: read aloud, speak, play a game, play a sport) (SC)	0.425	0.338			0.577
27. When I get frightened, I feel like I am choking. (PN)	0.411			0.317	0.662
18. When I get frightened, my heart beats fast. (PN)	0.338				0.706
24. I get really frightened for no reason at all. (PN)	0.331				0.609
23. I am a worrier. (GD)	0.323				0.561
22. When I get frightened, I sweat a lot. (PN)	0.321				0.716
26. It is hard for me to talk with people I don't know well. (SC)		0.857			0.254
3. I don't like to be with people I don't know well. (SC)		0.756			0.438
10. I feel nervous with people I don't know well. (SC)		0.711			0.412
32. I feel shy with people I don't know well. (SC)		0.575			0.534
40. I feel nervous when I am going to parties, dances, or any place where there will be people that I don't know well. (SC)		0.532			0.53
41. I am shy. (SC)		0.426			0.656
8. I follow my mother or father wherever they go. (SP) (dropped)					0.881
35. I worry about how well I do things. (GD)			0.74		0.387
33. I worry about what is going to happen in the future. (GD)			0.694		0.328
21. I worry about things working out for me. (GD)			0.599		0.492
14. I worry about being as good as other kids. (GD)			0.59		0.52
37. I worry about things that have already happened. (GD)	0.338		0.485		0.315
5. I worry about other people liking me.(GD)			0.444		0.756
2. I get headaches when I am at school. (SH)	0.335		0.379		0.671
13. I worry about sleeping alone. (SP)				0.594	0.642
16. I have nightmares about something bad happening to my parents. (SP)	0.32			0.586	0.464
31. I worry that something bad might happen to my parents. (SP)				0.585	0.476
29. I don't like to be away from my family. (SP)				0.555	0.591
20. I have nightmares about something bad happening to me. (SP)			0.377	0.499	0.478
25. I am afraid to be alone in the house. (SP)				0.478	0.713
4. I get scared if I sleep away from home. (SP)				0.451	0.729
28. People tell me that I worry too much. (GD) (dropped)					0.535

The identified four-factor model explained 44.4% of the variance, as shown in Table 3.

Table 3. Explained variance

Factor	SS Loadings	% of Variance	Cumulative %
1	6.65	16.21	16.2
2	4.34	10.59	26.8
3	3.95	9.64	36.4
4	3.27	7.97	44.4

The standard criterion of .30 was adopted for retaining items. Two items were excluded from the analysis because they did not load onto any factor ("I follow my mother or father wherever they go" and "People tell me that I worry too much"). The first factor was saturated with the items that indicated Panic Disorder/Significant Somatic Symptoms and a few other items from Significant School Avoidance of the original SCARED sub-scales. The second factor consisted

exclusively of Social Anxiety items. The third factor contained six of the seven Generalized Anxiety items and one Significant School Avoidance item. The fourth extracted factor captured almost all the Separation Anxiety items loading above .3. The factor loadings ranged from 0.31 to 0.86, indicating a good factor saturation. This four-factor solution could reflect that the School Anxiety (SA) scale, is psychometrically less robust than any of the other four scales. Additionally, the significant school avoidance subscale (SH) was not confirmed in several other studies (e.g., Ang, 2020; Vigil-Colet et al., 2009), suggesting that this scale may not possess the specificity of the other scales, as reported in Birmaher et al., 1997). It is noteworthy that the four items constituting school avoidance were extracted under the first factor, which measures panic disorder. Different methods of extraction (principal axis, maximum likelihood, minimum residuals) and rotation (oblimin, varimax, promax) of factors provided one invariant solution with a similar factor structure to the SCARED scale.

Table 4 shows that both the Cronbach's alpha and McDonald's omega coefficients were above the threshold value of .7 and, according to Taber (2018), indicate satisfactory or decent internal consistency. Cronbach's alpha and McDonald's omega coefficients were identical for the total SCARED scale and demonstrated an exceptionally high internal consistency of .943.

Table 4. Cronbach's alpha and McDonald's omega coefficients of internal consistency

SCARED scale and sub-scales scores	Cronbach's α	McDonald's ω
Total SCARED score	.943	.943
Panic Disorder	.881	.883
Generalized Anxiety Disorder	.873	.876
Separation Anxiety Disorder	.795	.802
Social Anxiety Disorder	.862	.865
Significant School Avoidance	.737	.764

The means, standard deviations and inter-correlations between the SCARED subscales are presented in Table 5. All correlations are positive, statistically significant and in the range of .376 to .712, indicating the possibility of summarising all subscales in a total SCARED score.

Table 5. Means, standard deviations and correlations between each of the SCARED subscales

	Variable	*M*	*SD*	1	2	3	4	5
1	Panic disorder	7.77	6.03					
2	Generalised anxiety disorder	9.23	4.96	.712**	-			
3	Separation anxiety disorder	4.70	3.62	.585**	.585**	-		
4	Social anxiety disorder	6.64	3.98	.573**	.598**	.434**	-	
5	Significant school avoidance	2.13	2.09	.664**	.645**	.376**	.466**	-

** Correlation is significant at the 0.01 level (2-tailed).

3.2 Anxiety, Gender and Age Differences

The average anxiety score of female students (M=38.6) was significantly higher than the average score of their male counterparts (M=26.0). An independent samples t-test indicated that the difference between male and female anxiety scores is statistically significant (t = -4.209, $p<.001$, $d = 0.799$). Also, the median score for the SCARED scale for female students was 30.5, while the SCARED scores were significantly lower for males, at 25.5. Nonparametric Mann-Whitney analysis indicated that the median scores of male and female students were significantly different (U = 985, $p < 0.001$ two-tailed, $\varepsilon^2 = .399$). Further analysis of the SCARED subscales also demonstrated a higher incidence of anxiety among female secondary school students. The chi-square tests for each of the five anxiety subscales demonstrating that females were significantly more likely than males to experience Panic Disorder ($\chi^2 = 13.8$, p = .001), Generalised Anxiety Disorder ($\chi^2 = 6.4$, $p = .013$), Social Anxiety Disorder ($\chi^2 = 7.6$, $p = .007$; Significant School Avoidance ($\chi^2 = 612.2$, $p = .001$). Only the difference between male and female students regarding Separation Anxiety was not statistically significant ($\chi^2 = .534$, $p = .565$).

Our study found that students' average anxiety levels (Figure 2A) and the proportion of students above the threshold considered an indicator of high anxiety (Figure 2B) increased with age. However, probably due to the relatively small number of participants, statistical analyses indicated that the differences in anxiety levels by year of schooling are not

statistically significant. Analysis of variance found no significant difference among the four year-levels in terms of elevated average anxiety levels ($F = .357$, $p<.784$, $\eta^2_p = .009$).

The equivalent nonparametric analysis (Kruskal-Wallis test) also showed no significant effect for the average anxiety level of anxiety by year level ($H = 5.04$, $p = .169$, $\varepsilon^2 = .0423$) or indication of elevated levels of anxiety ($H = 1.09$, $p = .780$, $\varepsilon^2 = .00914$). Exploration of the relationships between the student age and anxiety level warrants further study with a larger number of participants for each year of schooling.

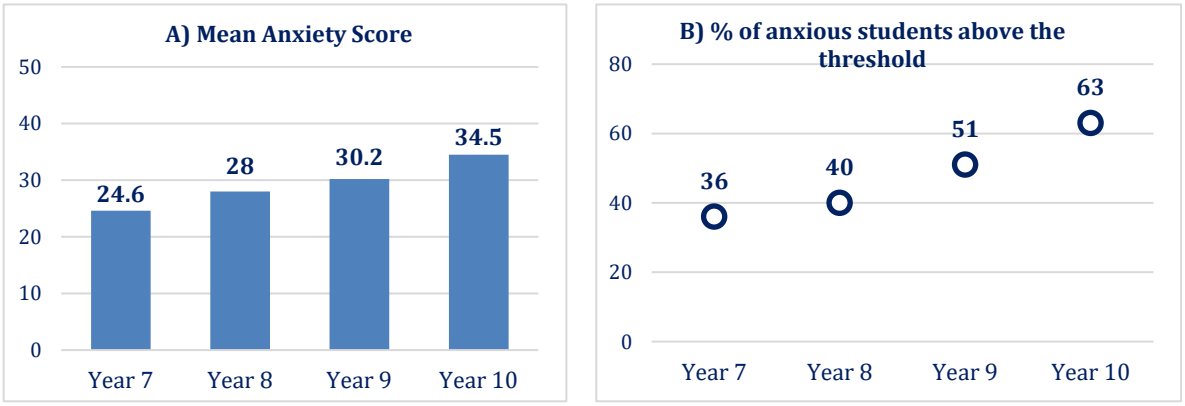

Figure 2. Mean anxiety scores and percentage of anxious students above the threshold by year of schooling

3.3 Anxiety and Absenteeism From School

Our study found a significant Spearman correlation between respondents' SCARED total anxiety scores and their absenteeism from school ($\rho = .157$, $p = .046$). Results indicate that anxious students were likelier to miss school than their less anxious peers. Our study found no significant difference between students' anxiety and their achievement in Maths, English, and Maltese, despite a tendency indicating that respondents with a lower level of anxiety achieved higher scores than their counterparts with higher anxiety. A Mann-Whitney test ($U = 1145.5$, $z = -.823$, $p = .411$) revealed that in Maths the median value of the low-scoring group ($Md = 62$) was not significantly higher than that of the high-scoring group ($Md = 57$). A second Mann-Whitney test ($U = 1396.5$, $z = -.1.101$, $p = .271$) similarly revealed that in English, the median value of the low-scoring group ($Md = 63$) was not significantly higher than that of the high-scoring group ($Md = 56$). A third Mann-Whitney test ($U = 1461$, $z = -.735$, $p = .462$) likewise revealed that in Maltese, the median value of the low-scoring group ($Md = 62$) was not significantly higher than that of the high-scoring group ($Md = 57$).

4. Discussion and Conclusions

The first objective of this study was to explore the incidence of anxiety disorders measured by SCARED in a sample of secondary school students attending church schools. The study found that the mean score of the SCARED scale was 30.4 (SD = 16.6) and that over half (62.5%) of the students participating in this study registered a score above 30 points. The recommended cut-off criterion for SCARED scores of 30 points requires closer scrutiny for our participants. This proportion of students classified as anxious is much higher than reported in several other countries. The recommended cut-off criterion in this study requires further examination, including cross-validation and clinical evaluation, as suggested by Vasey and Lonigan (2000). However, our results are similar to the results of the HBSC study (Inchley et al., 2020), which found that children in Malta more frequently than children in many other countries experience multiple mental and physical health issues. This result was similar to the recent Gallup Global Emotions poll (Gallup, 2022) in which the Maltese participants were among the angriest in Europe (24% reported being angry), among the most stressed in Europe (49%) and the fourth most anxious (64 %) worldwide. This is probably due to the high population density of 1667 persons per square kilometre (United Nations, 2022), excessive road traffic congestion (Repeckaite, 2018), and excessive urbanisation (Hudson, 2019).

The aim of this study was also to examine the structure and internal consistency of the translated and adapted SCARED scale. Based on exploratory factor analysis, a four-factor model was the most suitable solution for our data set. An inspection of the item saturation revealed that most items loaded onto their original factors. The identified four-factor solution was consistent with several other studies that identified the same number of factors (Ang, 2020; Arab et al., 2016; Muris et al., 2002). The proportion of explained variance (44.4%) of the four factors found in this study is similar to the 42.08% of explained variance found in a recent study conducted by Ang (2020). Ang (2020) and Vigil-Colet et al. (2009) suggested a revised four-factor model that excludes school avoidance indicators since the SCARED school avoidance subscale was not confirmed in several validation studies in various countries. The school avoidance scale was

the scale with the lowest sensitivity and specificity of the five SCARED sub-scales in Birmaher et al. (1997).

Regarding the second objective of this study, our results indicate significant differences between male and female students concerning their anxiety levels. Like several other studies (Hale et al., 2011; Kaajalaakso et al., 2020; Muris et al., 2002; Su et al., 2008), our study found that girls experienced higher levels of anxiety than boys, and this difference was highly statistically significant. Females reported scores above threshold levels more frequently than males for all subscales except separation anxiety. Our results confirm previous findings and conclusions that school administrators should pay close attention to students' stress and anxiety to organise timely interventions, particularly for female students who are likely to need this form of support more frequently than boys. As described in Figure 2, students' total mean SCARED scores increased steadily with the year of education. However, due to the relatively small number of participants, the differences among students in our study were not statistically significant. The findings from our study are, to some extent, similar to a study conducted by Su et al. (2008, p. 615), suggesting that "the adolescent group (aged 13–16 years) had significantly higher scores than the children group (aged 8–12 years) on the total anxiety score". In contrast, some other studies (e.g., Muris et al., 2002) found that most anxiety disorder symptoms declined slightly with age.

Finally, the results indicated that students with a higher level of anxiety were more likely to miss school than their counterparts who reported lower levels of anxiety. Our findings are consistent with Finning et al.'s (2019) findings indicating that anxiety as a mental health issue plays a significant role in addition to illnesses (Ingul & Nordahl, 2013).

Our study identified several questions that require further research. One question is related to the high cut-offs on the SCARED scale. Also, the internal consistency of the school avoidance scale and the relative instability of the factor structure of the SCARED scale require further study. Further research is also required to determine the relationships between students' age and anxiety due to the serious individual and social consequences of students' anxiety. Future studies of student anxiety and validation of the SCARED scale will require a focus on a broader student population and recruitment of a representative sample sufficient for reliable conclusions about the relationships between the level of anxiety and student age. Future studies are warranted to explore test-retest reliability and invariance or the stability of the SCARED scale's internal consistency coefficients and factorial structure.

In sum, based on the results of our study, the SCARED scale seems useful for screening anxiety disorder symptoms in middle and secondary school students. The translated measure produced results comparable to those of other studies regarding good internal consistency, and the explained percentage of variance accounted for by the four identified factors. The results suggest that the Significant School Avoidance subscale requires further development. Additionally, Birmaher et al. (2009) and Jastrowski Mano et al. (2012) found that the low internal consistency and relatively weak psychometric properties of this subscale indicated the need for its further development by redefining the existing items and the addition or exclusion of some items that are inconsistent with the entire scale. A review of the translation process, an extension of the response scale from three to five points, the possible removal or replacement of low-loading items, and the inclusion of some additional indicators of anxiety is likely to provide a scale that is more ecologically valid in the context in which it was applied. Given the acceptable results of this study, the simplicity of the screening with the SCARED scale and the short time required to administer this scale, the teacher can easily administer the instrument to identify students with increased anxiety levels. An online form of this scale can include automatic scoring and provide school support services with immediate insight into anxiety-related issues in the entire school. Currently, we are preparing an experimental study based on this suggested approach.

Compliance with Ethical Standards

The Faculty Research Ethics Committee (Faculty of Education, University of Malta) granted ethical approval for this study to be conducted (Research Ethics Clearance 6483_180121).

Written informed consent was obtained from the parents or guardians of all the participants for their children to participate in this study. All the participants (who were minors at the time the study was conducted) assented in writing to their participation after parental consent was given.

Permissions

The creator of the Screen for Child Anxiety Related Disorders (SCARED), Professor Birmaher, has permitted me to translate his instrument to Maltese.

Availability of data

The data has been uploaded to Zenodo (https://doi.org/10.5281/zenodo.6448728)

Competing interests/conflict of interest

The authors declare no personal or institutional actual or potential conflict of interest with respect to the research, authorship, and/or publication of this article.

Funding

This study did not receive any funding or support.

Authors' contribution

VM conceived the study and its design. Material preparation and data collection were performed by CG. VM conducted the analysis and wrote the manuscript.

References

Allen, K. B., Benningfield, M., & Blackford, J. U. (2020). Childhood anxiety-If we know so much, why are we doing so little? *Journal of the American Medical Association of Psychiatry*, *77*(9), 887-888. https://doi.org/10.1001/jamapsychiatry.2020.0585

Alonso, J., & Lepine, J. P. (2007). Overview of key data from the European study of the epidemiology of mental disorders (ESEMeD). *The Journal of Clinical Psychiatry, 68*(2), 3-9.

American Psychiatric Association (1994). *Diagnostic and Statistical Manual of Mental Disorders* (4th ed.). Washington, DC: American Psychiatric Association. https://doi.org/10.1176/appi.books.9780890425596

American Psychiatric Association. (2013). *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.). Washington, DC: American Psychiatric Association.

Ang, C. S. (2020). Anxiety in Malaysian children and adolescents: validation of the Screen for Child Anxiety Related Emotional Disorders (SCARED). *Trends in Psychiatry and Psychotherapy, 42*(1), 7-15. https://doi.org/10.1590/2237-6089-2018-0109

Arab, A., El Keshky, M., & Hadwin, J. A. (2016). Psychometric properties of the screen for child anxiety related emotional disorders (scared) in a non-clinical sample of children and adolescents in Saudi Arabia. *Child Psychiatry and Human Development, 47*(4), 554-562. https://doi.org/10.1007/s10578-015-0589-0

Behrens, B., Swetlitz, C., Pine, D. S., & Pagliaccio, D. (2019). The Screen for Child Anxiety Related Emotional Disorders (SCARED): Informant discrepancy, measurement invariance, and test–retest reliability. *Child Psychiatry and Human Development, 50,* 473-482. https://doi.org/10.1007/s10578-018-0854-0

Birmaher, B., Brent, D. A., Chiappetta, L., Bridge, J., Monga, S., & Baugher, M. (1999). Psychometric properties of the Screen for Child Anxiety Related Emotional Disorders (SCARED): A replication study. *Journal of the American Academy of Child and Adolescent Psychiatry, 38*(10), 1230-1236. https://doi.org/10.1097/00004583-199910000-00011

Birmaher, B., Khetarpal, S., Brent, D., Cully, M., Balach, L., Kaufman, J., & McKenzie Neer, S. (1997). The Screen for Child Anxiety Related Emotional Disorders (SCARED): Scale construction and psychometric characteristics. *Journal of the American Academy of Child & Adolescent Psychiatry, 36*(4), 545-553. https://doi.org/10.1097/00004583-199704000-00018.

Birmaher, B., Khetarpal, S., Brent, D., Cully, M., Balach, L., Kaufman, J., & McKenzie Neer, S. (SCARED), Muris, P., Engelbrecht, P., Schmidt, H., & Mayer, B. (SCARED-R). (2009). Screen for Child Anxiety Related Emotional Disorders (SCARED). In A. J. Rush., M. B. First, & D. Blacker (Eds.). *Handbook of psychiatric measures* (2nd ed., pp. 329-332). Washington DC: American Psychiatric Association Publishing.

Brahmbhatt, A., Richardson, L., & Prajapati, S. (2021). Identifying and managing anxiety disorders in primary care. *The Journal for Nurse Practitioners, 17*(1), 18-25. https://doi.org/10.1016/j.nurpra.2020.10.019

Bruhn, A. L., Woods-Groves, S., & Huddle, S. (2014). A preliminary investigation of emotional and behavioral screening practices in K–12 schools. *Education & Treatment of Children, 37*, 611-634. https://doi.org/10.1353/etc.2014.0039

Byrne, B. M. (2010). Structural equation modeling with AMOS: Basic concepts, applications, and programming. New York: Routledge.

Casey, B. J., & Lee, F. S. (2015). Optimizing treatments for anxiety by age and genetics. *Annals of the New York Academy of Sciences*, *1345*(1), 16-24. https://doi.org/10.1111/nyas.12746

Chisholm, D., Sweeny, K., Sheehan, P., Rasmussen, B., Smit, F., Cuijpers, P., & Saxena, S. (2016). Scaling-up treatment of depression and anxiety: a global return on investment analysis. *Lancet Psychiatry, 3*(5), 415-424. https://doi.org/10.1016/S2215-0366(16)30024-4

Connolly, S. D., Bernstein, G. A., & The Work Group on Quality Issues. (2007). Practice parameter for the assessment and treatment of children and adolescents with anxiety disorders. *Journal of the American Academy of Child &*

Adolescent Psychiatry, 46, (2), 267-283. https://doi.org/10.1097/01.chi.0000246070.23695.06

Cortina, J. M. (1993). What is coefficient alpha? An examination of theory and applications. *Journal of Applied Psychology*, *78*(1), 98-104.

Crocetti, E., Hale III, W. W., Fermani, A., Raaijmakers, Q., & Meeus, W. (2009). Psychometrics properties of the Screen for Child Anxiety Related Emotional Disorders (SCARED) in general Italian adolescent population: a validation and a comparison between Italy and The Netherlands. *Journal of Anxiety Disorders, 23*, 824-829. https://doi.org/10.1016/j.janxdis.2009.04.003

Dehghani, F., Amiri, S., Molavi, H., & Neshat-Doost, H. T. (2013). Psychometric properties of the Persian version of the screen for child anxiety-related emotional disorders (SCARED). *Journal of Anxiety Disorders, 27*(5), 469-474. https://doi.org/10.1016/j.janxdis.2013.06.003

Desousa, D. A., Salum, G. A., Isolan, L. R., & Manfro, G. G. (2013). Sensitivity and Specificity of the Screen for Child Anxiety Related Emotional Disorders (SCARED): A community-based study. *Child Psychiatry and Human Development*, *44*(3), 391-399. https://doi.org/10.1007/s10578-012-0333-y

Early Intervention Foundation. (2020). Screen for Child Anxiety Related Emotional Disorders (SCARED) 41-item self-report measure for 8-18-year-olds. https://www.eif.org.uk/files/resources/measure-report-child-scared.pdf

Essau, C. A., Anastassiou-Hadjicharalambous, X., & Munoz, L. C. (2013). Psychometric properties of the Screen for Child Anxiety Related Emotional Disorders (SCARED) in Cypriot children and adolescents. *European Journal of Psychological Assessment, 29*, 19-27. https://doi.org/10.1027/1015-5759/a000116

Field, A. (2009). *Discovering statistics using SPSS* (3rd edition). London: SAGE Publications.

Finning, K., Ukoumunne, O. C., Ford, T., Danielson-Waters, E., Shaw, L., Romero De Jager, I., Stentiford, L., & Moore, D. A. (2019). Review: The association between anxiety and poor attendance at school–a systematic review. *Child and Adolescent Mental Health*, *24*(3), 205-216. https://doi.org/10.1111/camh.12322

Gallup. (2022). What is the world's emotional temperature? https://news.gallup.com/interactives/248240/global-emotions.aspx

Gauci, D., England, K., & Calleja, N. (2018). *European health interview survey 2014/2015: Summary statistics (Malta)*. Directorate for Health Information and Research. https://deputyprimeminister.gov.mt/en/dhir/Pages/PUB.aspx

Gliem, J. A., & Gliem, R. R. (2003). Calculating, interpreting, and reporting Cronbach's alpha reliability coefficient for Likert-type scales. Midwest Research-to-Practice Conference in Adult, Continuing, and Community Education. https://scholarworks.iupui.edu/bitstream/handle/1805/344/Gliem%20%26%20Gliem.pdf?sequence=1&isAllowed=y

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis* (7th ed). Pearson, New York.

Hale III, W. W., Crocetti, E., Raaijmakers, Q. W., & Meeus, W. J. (2011). A meta-analysis of the cross-cultural psychometric properties of the Screen for Child Anxiety Related Emotional Disorders (SCARED). *Journal of Child Psychology and Psychiatry, and Allied Disciplines, 52*(1), 80-90. https://doi.org/10.1111/j.1469-7610.2010.02285.x

Hale III, W. W., Raaijmakers, Q. A. W., García López, L. J., Espinosa Fernández, L., Muela Martínez, J. A., & del Mar Díaz-Castela, M. (2013). Psychometric properties of the screen for child anxiety related emotional disorders for socially anxious and healthy Spanish adolescents. *Spanish Journal of Psychology, 16*(1), 1-7. https://doi.org/10.1017/sjp.2013.36

Hariz, N., Bawab, S., Atwi, M., Tavitian, L., Zeinoun, P., Khani, M., Birmaher, B., Nahas, Z., & Maalouf, F. T. (2013). Reliability and validity of the Arabic Screen for Child Anxiety Related Emotional Disorders (SCARED) in a clinical sample. *Psychiatry Research*, *209*(2), 222-228. https://doi.org/10.1016/j.psychres.2012.12.002

Hill, F., Mammarella, I., Devine, A., Caviola, S., Passolunghi, M., & Szűcs, D. (2016). Maths anxiety in primary and secondary school students: Gender differences, developmental changes and anxiety specificity. *Learning and Individual Differences, 48*, 45-53. https://doi.org/10.1177/0956797609359624

Hudson, D. (2019). Traffic, construction, loss of open spaces ... it is becoming stressful. *Malta Today.* https://www.maltatoday.com.mt/lifestyle/health/96562/traffic_construction_loss_of_open_spaces_it_is_becoming_stressful#.YvjMnBxByUk

Inchley, J., Currie, D., Budisavljevic, S., Torsheim, T., Jåstad, A., Cosma, A., Kelly, C., Arnarsson, Á. M., & Samdal, O. (Eds.) (2020). *Spotlight on adolescent health and well-being. Findings from the 2017/2018 - Health Behaviour in School-aged Children (HBSC) survey in Europe and Canada*. International report. Volume 2. Key data. Copenhagen:

WHO Regional Office for Europe.
https://apps.who.int/iris/bitstream/handle/10665/332091/9789289055000-eng.pdf

Ingul, J. I., & Nordahl, H. M. (2013). Anxiety as a risk factor for school absenteeism: what differentiates anxious school attenders from non-attenders? *Annals of General Psychiatry, 12*(1), 1-9. https://doi.org/10.1186/1744-859X-12-25

Isolan, L., Salum, G. A., Osowski, A. T., Amaro, E., & Manfro, G. G. (2011). Psychometric properties of the Screen for Child Anxiety Related Emotional Disorders (SCARED) in Brazilian children and adolescents. *Journal of Anxiety Disorders, 25*, 741-748. https://doi.org/10.1016/j.janxdis.2011.03.015

Ivarsson, T., Skarphedinsson, G., Andersson, M., & Jarbin, H. (2018). The validity of the Screen for Child Anxiety Related Emotional Disorders Revised (SCARED-R) Scale and sub-scales in Swedish youth. *Child Psychiatry and Human Development*, *49*(2), 234-243. https://doi.org/10.1007/s10578-017-0746-8

Jastrowski Mano, K. E., Evans, J. R., Tran, S. T., Anderson Khan, K., Weisman, S. J., & Hainsworth, K. R. (2012). The psychometric properties of the Screen for Child Anxiety Related Emotional Disorders in pediatric chronic pain. *Journal of Pediatric Psychology, 37*(9), 999-1011. https://doi.org/10.1093/jpepsy/jss069

Kaajalaakso, K., Lempinen, L., Ristkari, T., Huttunen, J., Luntamo, T., & Sourander, A. (2020). Psychometric properties of the screen for child anxiety related emotional disorders (SCARED) among elementary school children in Finland. *Scandinavian Journal of Psychology, 62*, 34-40. https://doi.org/10.1111/sjop.12677

Kaiser, H. F. (1974). An index of factorial simplicity. *Psychometrika, 39*(1), 31-39. https://doi.org/10.1007/BF02291575

Kendall, P. C., & Flannery-Schroeder, E. C. (1998). Methodological issues in treatment research for anxiety disorders in youth. *Journal of Abnormal Child Psychology, 26,* 27-38. https://doi.org/10.1023/A:1022630706189

Kitchener, B, Jorm, A., Kelly, C., & Richmond Foundation Malta. (2018). *Mental Health First Aid Malta: Mental Health First Aid Manual*. (2nd. ed.) Malta: Richmond Foundation Malta.

La Vonne, A. D., Zun, L. S., & Burke, T. (2012). Undiagnosed mental illness in the emergency department. *The Journal of Emergency Medicine*, *43*(5), 876-882. https://doi.org/10.1016/j.jemermed.2011.06.055

Leikanger, E., Ingul, J. M., & Larsson, B. (2012). Sex and age-related anxiety in a community sample of Norwegian adolescents. *Scandinavian Journal of Psychology*, *53*(2), 150-157.
https://doi.org/10.1111/j.1467-9450.2011.00915.x

Martin, A., & Gosselin, P. (2012). Propriétés psychométriques de l'adaptation francophone d'une mesure de symptômes des troubles anxieux auprès d'enfants et d'adolescents (SCARED-R) [Psychometric properties of the French adaptation of a measure for symptoms of anxiety disorders among children and adolescents (SCARED-R)]. *Canadian Journal of Behavioural Science / Revue canadienne des sciences du comportement*, 44(1), 70-76. https://doi.org/10.1037/a0023103

Mazzone, L., Ducci, F., Scoto, M. C., Passaniti, E., D'Arrigo, V. G., & Vitiello, B. (2007). The role of anxiety symptoms in school performance in a community sample of children and adolescents. *BMC Public Health*, *7*, 347. https://doi.org/10.1186/1471-2458-7-347

Monga, S., & Benoit, D. (2018). *Assessing and treating anxiety disorders in young children.* Springer. https://doi.org/10.1007/978-3-030-04939-3_1

Muris, P., Schmidt, H., Engelbrecht, P., & Perold, M. (2002). DSM-IV–Defined anxiety disorder symptoms in South African children. *Journal of the American Academy of Child and Adolescent Psychiatry, 41*(11), 1360-1368. https://doi.org/10.1097/00004583-200211000-00018

Mychailyszyn, M. P., Beidas, R. S., Benjamin, C. L., Edmunds, J. M., Podell, J. L., Cohen, J. S., & Kendall, P. C. (2011). Assessing and treating child anxiety in schools. *Psychology in the Schools*, *48*(3), 223-232. https://doi.org/10.1002/pits.20548

National Statistics Office. (2021). Pre-primary, primary and secondary formal education: 2018-2019. https://nso.gov.mt/en/News_Releases/Documents/2021/01/News2021_015.pdf

OECD. (2017). *PISA 2015 Results* (Volume III). Paris, France. https://doi.org/10.1787/9789264273856-en

OECD/European Union (2018). "Promoting mental health in Europe: Why and how?", in *Health at a Glance: Europe 2018: State of Health in the EU Cycle*. OECD Publishing, Paris/European Union, Brussels. https://doi.org/10.1787/health_glance_eur-2018-4-en

Öhman, A. (2008). Fear and anxiety: overlaps and dissociations. In M. Lewis, J. M. Haviland-Jones, & L. Feldman Barrett. *Handbook of emotions (3rd ed.)* (pp. 709-729). New York: The Guilford Press.

Olason, D. T., Sighvatsson, M. B., & Smári, J. (2004). Psychometric properties of the multidimensional anxiety scale for children (MASC) among Icelandic schoolchildren. *Scandinavian Journal of Psychology, 45*, 429-436. https://doi.org/10.1111/j.1467-9450.2004.00424.x

Owens, M., Stevenson, J., Hadwin, J. A., & Norgate, R. (2014), When does anxiety help or hinder cognitive test performance? The role of working memory capacity. *British Journal of Psychology, 105,* 92-101. https://doi.org/10.1111/bjop.12009

Pacheco-Unguetti, A. P., Acosta, A., Callejas, A., & Lupiáñez, J. (2010). Attention and anxiety: different attentional functioning under state and trait anxiety. *Psychological Science, 21*(2), 298-304. https://doi.org/10.1177/0956797609359624

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

Pereira, A. I., Muris, P., Barros, L., Goes, R., Marques, T., & Russo, V. (2015). Agreement and discrepancy between mother and child in the evaluation of children's anxiety symptoms and anxiety interference. *European Child and Adolescent Psychiatry, 24*. 327-337. https://doi.org/10.1007/s00787-014-0583-2

Phillips, B. M., Lonigan, C. J., Driscoll, K., & Hooe, E. S. (2002), Positive and negative affectivity in children: a multitrait-multimethod investigation. *Journal of Clinical Child and Adolescent Psychology, 31*(4), 465-479. https://doi.org/10.1207/S15374424JCCP3104_6

Putwain, D., & Daly, A. L. (2014). Test anxiety prevalence and gender differences in a sample of English secondary school students. *Educational Studies*, *40*(5), 554-570. https://doi.org/10.1080/03055698.2014.953914

Rampazzo, L., Mirandola, M., Davis, R. J., Carbone, S., Mocanu, A., Campion, J., … & Xerri, R. (2016). *Joint Action on Mental Health and Well-being. Mental Health and Schools: Situation analysis and recommendations for action*. Joint Action on Mental Health and Well-being (MH-WB) project. https://ec.europa.eu/health/system/files/2017-07/2017_mh_schools_en_0.pdf

Repeckaite, D. (2018, August 1). Can Malta tackle its traffic problem? *Equal Times.* https://www.equaltimes.org/can-malta-tackle-its-traffic#.YvjJUxxByUk

Runyon, K., Chesnut, S. R., & Burley, H. (2018). Screening for childhood anxiety: A meta-analysis of the screen for child anxiety related emotional disorders. *Journal of Affective Disorders*, *240*, 220-229. https://doi.org/10.1016/j.jad.2018.07.049

Spielberger, C. D. (1972). Anxiety as an emotional state. In C. D. Spielberger (Ed.), *Anxiety: Current trends in theory and research:* Vol.1 (pp. 23-49). New York: Academic Press. https://doi.org/10.1016/B978-0-12-657401-2.50009-5

Su, L., Wang, K., Fan, F., Su, Y., & Gao, X. (2008). Reliability and validity of the screen for child anxiety related emotional disorders (SCARED) in Chinese children. *Journal of Anxiety Disorders*, *22*(4), 612-621. https://doi.org/10.1016/j.janxdis.2007.05.011

Taber, K. S. (2018). The use of Cronbach's alpha when developing and reporting research instruments in science education. *Research in Science Education, 48*(6), 1273-1296. https://doi.org/10.1007/s11165-016-9602-2

Tang, X., Tang, S., Ren, Z., & Wong, D. F. K. (2019). Prevalence of depressive symptoms among adolescents in secondary school in mainland China: A systematic review and meta-analysis. *Journal of Affective Disorders*, *245*, 498-507. https://doi.org/10.1016/j.jad.2018.11.043

Tomb, M., & Hunter, L. (2004). Prevention of anxiety in children and adolescents in a school setting: The role of school-based practitioners. *Children & Schools*, *26*(2), 87-101. https://doi.org/10.1093/cs/26.2.87

Tramonte, L., & Willms, D. (2010). The prevalence of anxiety among middle and secondary school students in Canada. *Canadian Journal of Public Health/Revue Canadienne de Sante'e Publique*, S19-S22.

United Nations (2022). *World Population Prospects*. https://worldpopulationreview.com/countries/malta-population

Van Ameringen, M., Mancini, C., & Farvolden, P. (2003). The impact of anxiety disorders on educational achievement. *Journal of Anxiety Disorders, 17*(5), 561–571. https://doi.org/10.1016/S0887-6185(02)00228-1

Vasey, M. W., & Lonigan, C. J. (2000). Considering the clinical utility of performance-based measures of childhood anxiety. *Journal of Clinical Child Psychology, 29* (4), 493–508. https://doi.org/10.1207/S15374424JCCP2904_4

Vigil-Colet, A., Canals, J., Cosi, S., Lorenzo-Seva, U., Ferrando, P. J., Hernández-Martinéz, C., … & Doménech, E.

(2009). The factorial structure of the 41-item version of the Screen for Child Anxiety Related Emotional Disorders (SCARED) in a Spanish population of the 8 to 12 years-olds. *International Journal of Clinical and Health Psychology, 9*, 313-327. https://doi.org/10.1037/t78625-000

Woodward, L. J., & Fergusson, D. M. (2001). Life course outcomes of young people with anxiety disorders in adolescence. *Journal of the American Academy of Child Adolescence and Psychiatry, 40*(9), 1086-1093. https://doi.org/10.1097/00004583-200109000-00018.

Yang, X., Fang, Y., Chen, H., Zhang, T., Yin, X., Man, J., Yang, L., & Lu, M. (2021). Global, regional and national burden of anxiety disorders from 1990 to 2019: results from the Global Burden of Disease Study 2019. *Epidemiology and psychiatric sciences*, *30*, e36. https://doi.org/10.1017/S2045796021000275