

## **Anxious Child: The Association between Helicopter Parenting and Anxiety among Primary School Students in Kedah, Malaysia**

Charles Ganaprakasam<sup>1\*</sup>  
Syeda Humayra<sup>2</sup>  
Kalaivani Ganasegaran<sup>3</sup>  
Hanif Asyraf Hashim<sup>4</sup>  
Selvamalar Armathlingam<sup>5</sup>

<sup>1</sup>Department of Educational Psychology and Counselling, Faculty of Education, University of Malaya, 50603 Kuala Lumpur

<sup>2</sup>Department of Public Health, Daffodil International University, Dhaka, Bangladesh

<sup>3,5</sup>Department of Mass Communication and Languages, Manipal International University, 71800 Negeri Sembilan, Malaysia

<sup>4</sup>Department of Language and Literacy Education, Faculty of Education, University of Malaya, 50603 Kuala Lumpur

\*Corresponding email: [ganaprakasamcharles@gmail.com]

Anxiety disorder is prevalent among children and can be accounted to multiple factors, including parenting practice. However, there is a paucity of empirical evidence on the underlying mechanism and efficacy of a screening tool that can be utilized for anxiety assessment purposes, particularly among children. Therefore, this study investigates the reliability and factorial structure of the Screen for Child Anxiety Related Emotional Disorders (SCARED) instrument and its association with helicopter parenting among primary school students. The online cross-sectional study consisted of 181 respondents selected through convenience sampling. The questionnaire was distributed through the WhatsApp messaging application with the assistance of school counselors. The findings indicated that 109 participants (60.2%) indicated the presence of anxiety disorder. Meanwhile, the factorial analysis demonstrated that the five-factor structure model of SCARED had a good model fit in this population with a total of 41.8% variances. A significant association was also found between helicopter parenting and Social Anxiety Disorder (SAD), Significant School Avoidance (SH), Generalized Anxiety Disorder (GAD), Panic Disorder (PN), and Separation Anxiety (SA). Such findings imply that SCARED is indeed reliable in measuring anxiety symptoms among children and highlight the critical role of parenting in nurturing socially functional individuals.

*Keywords:* SCARED, reliability, factorial structure, anxiety, helicopter parenting, Malaysia

Recently, the prevalence of mental health issue among children has been a burgeoning public health concern globally (Scherer et al., 2020). Existing evidence suggests that

children anxiety is the beginning avalanche of future psychopathology (Bhatia & Goyal, 2018; Racine et al., 2021) and, if left untreated, may lead to mood disorder in

adulthood (Doering et al., 2019; Päären et al., 2014). Among the common types of anxiety disorder experienced by children include separation anxiety disorder, specific phobias, generalized anxiety disorder, and panic disorder (Scherer et al., 2020). Although the brief symptoms of anxiety are common (Ivarsson et al., 2018), anxiety disorder among children may yield a multitude of undesirable outcomes in various domains like low reading fluency (Grills-Taquechel et al., 2013), poor academic achievement (Steinmayr et al., 2016), alleviated nervousness during social encounters (Cartwright-Hatton et al., 2005), and later substance abuse (Dyer et al., 2019). Thus, early intervention is pivotal to narrow the impaired functioning of anxiety disorder among children (Ferdinand et al., 2007).

In Malaysia, childhood anxiety disorder is propounded as the most common and critical mental health issue (Ahmadi et al., 2015). A recent study on anxiety in Malaysia revealed that 54% out of 224 children were screened positive for different types of anxiety such as separation anxiety, social anxiety, and school avoidance (Ang, 2020). Further evidence indicates that mental health issue among Malaysian youngsters (those between 5 to 15 years old) had increased from 13% in 1996 to 20% in 2011 (Ahmadi et al., 2015). These findings stand as prominent evidence that anxiety is indeed visible among children and further studies are needed to gain insightful data on the prevalence of different types of anxiety for the development of effective prevention and intervention strategies.

Scholars have long emphasized the significance of parenting on child psychosocial development (Vigdal & Brønnick, 2022). Haidt and Lukianoff (2018) argue that humans require both physical and mental challenges to foster resilience. Research by Seery et al. (2010) discovered

that individuals who faced a moderate amount of adversity exhibited better mental health compared to those who encountered excessive hardship or none at all. However, Perry et al. (2018) suggest that when children are shielded from challenges before experiencing any difficulties or failures, their ability to establish healthy regulatory strategies is hampered, resulting in a shortage of coping mechanisms when they are without parental support. This style of overprotective parenting, also known as helicopter parenting, may lead to severe mental health issues such as anxiety since these parents aim to ensure that their children lead a life free of struggles and hardships (Haidt and Lukianoff, 2018). Nevertheless, this desire for a perfect, painless life is counterproductive because it deprives children of the opportunity to develop competence and autonomy, which are vital for growth and development (Haidt and Lukianoff, 2018).

Furthermore, the discussion on childhood anxiety disorder can never steer away from the factors of parenting and parent-child relationship. Researchers believe that a constructive and pragmatic parent-child relationship is essential for a child's holistic development. It is because during the developmental age, most children consistently spend time with their parents; hence, their initial role model and behavior are often embryonic from the parents through their daily activities. This subsequently heightens the possibility of children imitating their parents' responses toward daily challenges (Xu et al., 2017). Hence, positive parenting and parent-child relationship are indeed a source of psychological support that enhances children's capability to champion their daily hassles and reduces the risk of anxiety disorder amongst them.

Despite the nationwide concern, empirical studies that look on anxiety among

Malaysian children (Al-Biltagi & Ali Sarhan, 2016; Ahmadi et al., 2015; Ang, 2020; Ghaffar et al., 2019) and its association with parenting and parent-child relationship remain scarce to date. This study, therefore, aims to address the gap by investigating childhood anxiety disorder among children in Malaysia with a specific focus on helicopter parenting. Specifically, this paper reports an investigation on the reliability and factor structure of the SCARED instrument and its association with helicopter parenting among primary school students in Kedah, Malaysia.

### **Literature Review**

This section contains a thorough review and discussion of past literature pertaining to the SCARED instrument and its reliability and factor analysis as well as the association between children anxiety and helicopter parenting.

### **SCARED Instrument and Factor Analysis**

Mental health screening instrument is crucial to enhance the clinical capability of diagnosing any specific disorder and plan effective prevention and intervention efforts. In this regard, several researchers advocate that the Screen for Child Anxiety Related Emotional Disorders (SCARED) questionnaire is a suitable and effective tool for childhood anxiety assessment (Carruthers et al., 2020; Hale et al., 2011; Ivarsson et al., 2018; Shin et al., 2020). A considerable amount of studies have been conducted in Western countries to analyze the psychometric characteristics of the SCARED instrument across different types of populations (Arab et al., 2016; Carruthers et al., 2020; David Lohr et al., 2017; Ivarsson et al., 2018; Kaajalaakso et al., 2021; Russell et al., 2013; Scherer et al., 2020; Shin et al.,

2020); however, the majority of these studies have reported mixed findings across different cultures.

Unlike other instruments that measure the level of anxiety such as the State-Trait Anxiety Inventory (STAIC) developed by Spielberger et al. (1989), SCARED is deemed as a more significant instrument particularly as it provides researchers with detailed information concerning the types of anxiety experienced by children (Hale et al., 2011; Shin et al., 2020). Such information is vital to develop effective prevention and intervention strategies. Given the said advantage, the SCARED instrument can be utilized to comprehend the prevalence of anxiety disorder among children in Malaysia.

Nevertheless, past studies adopting the SCARED instrument reported contradicting findings concerning the factor analysis, ranging between the five-factor structure (Arab et al., 2016; Stern et al., 2014) and the four-factor structure (Ang, 2020); the latter was adopted in the present study as it aligns with the Malaysian context. The four-factor structure consists of generalized anxiety, social anxiety, separation anxiety, and panic disorder, with cultural differences being an important deciding factor to measure anxiety using the SCARED instrument (Ang, 2020). Moreover, mixed findings were reported for the original five-factor model across different contexts (Chan & Leung, 2015; Scaini et al., 2017). This prompted the present study to determine the reliability and factorial structure of SCARED among primary school students.

### **Association Between Children Anxiety and Helicopter Parenting**

Genetic and environmental factors are important contributors to the etiology of psychiatric and behavioral problems (Dick et al., 2010). Apart from environmental

elements, effective parenting is often associated with good interpersonal relationships and positively contributes to a child's psychological well-being (Xu et al., 2017). On the other hand, children who grow up with authoritative parenting tend to have poor self-identity and personal growth. This is because longitudinal evidence suggests that negative parenting is commonly associated with various mental health consequences such as anxiety, aggression, self-esteem, and lower school satisfaction scores (Smokowski et al., 2015).

Aside from the three classical parenting dimensions introduced by Baumrind (1967), new dimensions of parenting practices have emerged to describe the changing and evolving nature in parenting. A relatively new parenting dimension is helicopter parenting (Janssen, 2015), which refers to hyper-involved parents who have been hovering over their children constantly. The practice of helicopter parenting is believed to restrict children from exploring and developing their world of curiosity as well as hampering their social and psychological competence. Several studies illustrated that helicopter parenting often leads to various behavioral and psychological problems (Karunaharan et al., 2021; Wang et al., 2021). While the majority of past studies explored the significant role of parenting practices on mental health and mainly emphasized on adolescents, this study differs in terms of the population (i.e., primary school children), thus contributing additional information to the existing body of knowledge.

### **General Strain Theory (GST)**

The General Strain Theory (Agnew, 1992) posits that negative experiences from one's poor relationship with their significant other would lead to negative impacts, which consequently makes them vulnerable to

various destructive behaviors. Generally, Agnew (2001) defines the three main types of strain as follows:

- (a) Failure to achieve valued goals such as respect, masculine status, autonomy, and desire for excitement which is essential to young adolescents.
- (b) Negatively valued stimuli such as exposure to undesirable experiences.
- (c) Loss of positively valued stimuli, such as loss of parents or theft of valued property that is significant to the individual, will result in ultimate strain.

Despite the existence of thousands of strains within an individual, Agnew (2001) clarified that strains which are severe, frequent, and seen as higher priority are most relevant in predicting deviant behavior. GST has been widely utilized in many studies to explain bullying victimization (Cho & Galehan, 2020), racial discrimination (Steele, 2016), as well as punitive parenting, peer deviance, and social isolation (Hong et al., 2017). Therefore, it was adopted as the primary theoretical framework in this study to explore the relationship between helicopter parenting and anxiety.

While positive parenting can provide children with a conducive environment and feed their curiosity of mind, some children have been denied from having such basic need. Furthermore, over-protective parenting limits the capability of children to explore and move freely to optimize their learning. The dynamic association between helicopter parenting and anxiety was explored in this study through the perspective of Agnew's GST. Briefly, the current study proposed that helicopter parenting is a source of strain that

leads children to several types of anxiety disorders.

### **Method**

A cross-sectional study was conducted using a quantitative research method in order to perform the reliability and factor analysis of the SCARED instrument and to determine its association with helicopter parenting.

### **Procedure and Participants**

A total of 181 students from three primary schools in the Kulim district, Kedah were recruited for this study through convenience sampling. The sociodemographic background showed that female participants outnumbered male participants with 54.7% and 45.3%, respectively. The majority of participants (68%) were 11 years old while only 2.2% were 10 years old. The parent's income characteristics showed that the highest income group was RM 1,000 – RM 2,000 (37.6%) followed by RM 2,001 – RM 3,000 (21%), RM 3,001 – RM 4,000 (14.9%), RM 4,001 – RM 5,000 (14.9%), and less than RM 1,000 (11.6%).

The data collection procedure occurred between 5 to 7 September 2021 amidst temporary school closure and online learning due to the implementation of the Movement Control Order (MCO) as a result of COVID-19. Students aged 9 to 11 years with access to the WhatsApp messaging application were eligible to participate in this study. Consent was obtained from the school administrators and the parents of all students who voluntarily agreed to be in the study. An online survey tool (Google Forms) was used to administer the questionnaire. The researchers effectively communicated with the school counselors to distribute the Google Form survey invitation link to the

participants via WhatsApp. All participants were allotted 30 minutes to attempt the questionnaire and they were constantly reminded to get assistance upon encountering any difficulties during the questionnaire-filling period. The questionnaire was administered in both English and Bahasa Malaysia to ease the participants' understanding.

### **Measurements**

The questionnaire utilized in this study consisted of three sections: Section 1 contained demographic items such as gender and parent's monthly income, Section 2 contained 41 items from the SCARED instrument, and Section 3 contained 10 items measuring the level of helicopter parenting.

### **Screen for Child Anxiety Related Disorder (SCARED)**

SCARED is a self-report instrument that consists of 41 items presented via a 3-point Likert scale with 1 = Not true or hardly ever true, 2 = Somewhat true or sometimes true, and 3 = Very true or often true. The scale is used to assess the forms of anxiety disorders experienced by children, namely Social Anxiety Disorder (SAD), Significant School Avoidance (SH), Generalized Anxiety Disorder (GD), Panic Disorder (PN), and Separation Anxiety (SA). Each type of anxiety has a different number of items: 6 items to measure Panic Disorder (PN), 6 items to measure Generalized Anxiety Disorder (GD), 5 items to measure Separation Anxiety (SA), 9 items to measure Social Anxiety Disorder (SAD), and 7 items to measure Significant School Avoidance (SH). Upon computing the total score for each item, the items' reliability was checked for internal consistency based on Cronbach's alpha coefficient. The scale used in this study was found to be highly reliable as the

Cronbach’s alpha for the whole sample was 0.884.

**Helicopter Parenting**

A total of 10 items were used to assess helicopter parenting using a 5-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). The descriptive analysis results showed that the mean score for helicopter parenting was 3.00 (SD = 11.41). The highest mean score was recorded by the item ‘My parents supervised my every move growing up’ (M = 3.61, SD = 1.11) followed by ‘It was very important to my parents that I never fail in life’ (M = 3.40, SD = 1.232). Whereas, the lowest mean score was recorded by the item ‘Growing up, I sometimes felt like I was my parents’ project’ (M = 2.25, SD = 1.26).

**Data Analysis**

All data were analyzed using the Statistical Package for Social Science (SPSS) Version 25.0 software. The respondents’ demographic profiles were summarized using descriptive statistics. Factor analysis was performed and the underlying variables

were identified based on the Kaiser-Meyer-Olkin (KMO) test and Bartlett’s Test of Sphericity. The association between anxiety and helicopter parenting was determined using a multiple regression model.

**Analysis**

Data screening can be enhanced when any outliers are treated effectively. Outliers within the present data were identified using the Mahalanobis Distance. There were two cases detected as multivariate outliers. Hence, the remaining samples of 181 were used for further analysis.

**Reliability**

Each subscale and total scale score were subjected to reliability test by measuring the Cronbach’s alpha coefficient. As shown in Table 1, the internal consistencies of the five SCARED factors ranged from 0.47 to 0.81 with only separation anxiety being lower than the cut-off point. Meanwhile, the overall internal consistency was good (Cronbach’s  $\alpha = 0.78$ ).

*Table 1*

Internal consistency of the SCARED factors

| Scale                             | $\alpha$ | Items                            |
|-----------------------------------|----------|----------------------------------|
| Social Anxiety Disorder (SAD)     | 0.79     | 32, 10, 40, 26, 5, 3, 13, 39, 41 |
| Significant School Avoidance (SH) | 0.72     | 14, 17, 36, 33, 21, 11, 37       |
| Generalized Anxiety Disorder (GD) | 0.81     | 9, 7, 28, 19, 23, 22             |
| Panic Disorder (PN)               | 0.74     | 1, 27, 6, 12, 38, 34             |
| Separation Anxiety (SA)           | 0.47     | 25, 29, 13, 8, 32                |

**Normality**

Visual interpretation using histogram and Shapiro-Wilk test were used in this study to determine the normality assumption of the data. The SCARED scores were summed up

by adding the scores for all 41 items. The histogram of the SCARED scores showed approximately a bell-shaped curve, which confirmed the normality of the data. Meanwhile, the Shapiro-Wilk test showed a non-significant result (p-value = 0.779).

Hence, it can be concluded that the normality assumption has been met.

### Descriptive Analysis

The distribution of the studied variables was analyzed using descriptive statistics. It was achieved by computing the sum, means, standard deviation, along with the minimum and maximum scores of the SCARED instrument. This study employed a 3-point Likert scale ranging from 0 to 2, where 0 = not true/hardly ever true, 1 = somewhat true or sometimes true, and 2 = very true/often true. The scores of all items in each subscale were added to create the total scores. The maximum score of the SCARED instrument was 62 and the minimum score was 0.

The results also demonstrated that the mean score for SCARED was 27.71 (SD = 11.41). The cut-off point 25 was used to determine the respondents' level of anxiety-related disorder. Using this cut-off point, the study revealed that 109 respondents (60.2%) scored 25 and above on the SCARED instrument as compared to 72 respondents (39.8%) who scored below 25. Hence, the results depict that more than half of the respondents demonstrate anxiety disorder.

Using a cut-off point of 7.0, it was found that 107 respondents (58.6%) experience Panic Disorder (PA). Meanwhile, a cut-off point of 9.0 revealed that 28 respondents (15.5%) experience Generalized Anxiety Disorder (GA). The findings also showed that a cut-off point of 5.0 and 8.0 revealed 142 respondents (78.5%) and 104 respondents (57.5%) experience Separation Anxiety Disorder (SA) and Social Anxiety Disorder (SAD), respectively. Finally, a cut-off point of 3.0 showed that 25 respondents (13.8%) experience Significant School Avoidance (SH).

### Exploratory Factor Analysis

Factor analysis using the “principal component extraction and varimax rotation” method was conducted to investigate the underlying dimensional structure of SCARED. The results showed that the “Bartlett’s test of sphericity” value was significant ( $p < 0.001$ ) and the Kaiser-Meyer-Olkin (KMO) value was 0.857, which exceeded the recommended value of 0.50 (Kaiser, 1974). The suitability of performing factor analysis was confirmed based on the KMO values.

Five factors solution was preferred to be extracted because of its previous theoretical reasoning (Yong & Pearce, 2013). The factor analysis of the current study revealed that SCARED comprised five factors, namely Social Anxiety Disorder (SAD), Significant School Avoidance (SH), Generalized Anxiety Disorder (GD), Panic Disorder (PN), and Separation Anxiety (SA).

The results further revealed that the five factors' solution accounted for a total of 41.7% variances. Eight items were suggested to be removed since they had no contribution factor. These items were also omitted because the minimum criteria were not met, i.e., the primary factor loading was below 0.40. The items included: (1) ‘I worry about how effective I execute tasks or duties’, (2) ‘I have nightmares about my parents being harmed or hurt’, (3) ‘I have nightmares about being hurt or experiencing a bad event’, (4) ‘I experience headache when at school’, (5) ‘I become really afraid for no reason at all’, (6) ‘When I am afraid, I feel like things are not real’, (7) ‘My heart beats faster when I am afraid’, and (8) ‘I am scared of experiencing anxiety (or panic) attacks’.

Meanwhile, the rotated component matrix (Table 2) showed that Factor 1: Social Anxiety Disorder (SAD) explained 8.2% of

the variance, Factor 2: Significant School Avoidance (SH) explained 8.1% of the variance, Factor 3: Generalized Anxiety Disorder (GD) accounted for 7.7% of the variance, Factor 4: Panic Disorder (PN) explained 7.3% of the variance, and Factor 5: Separation Anxiety (SA) explained 6.4% of

the variance. The factor loadings indicated that all five factors were fairly desirable with at least three items per factor that were above 0.32 (Tabahnick & Fidel, 2007).

Table 2

Rotated Component Matrix

|  | Factor                             |   |   |                        |                            |
|--|------------------------------------|---|---|------------------------|----------------------------|
|  | 1<br>Social<br>Anxiety<br>Disorder | 2<br>Significant<br>School<br>Avoidance | 3<br>Generalized<br>Anxiety<br>Disorder | 4<br>Panic<br>Disorder | 5<br>Separation<br>Anxiety |
| I feel shy with persons that I am not familiar with (32)   | .672                               |   |   |                        |                            |
| I feel nervous with persons that I am not familiar with (10)   | .662                               |   |   |                        |                            |
| I feel nervous when going for dancing, parties, or any location where I will meet people that I am not familiar with (400)                               | .580                               |   |   |                        |                            |
| It is difficult for me to communicate with persons that I am not familiar with (26)  | .552                               |   |   |                        |                            |
| I worry about other people liking me (5)   | .537                               |   |   |                        |                            |
| I dislike being with individuals that I am not familiar with (3)   | .526                               |   |   |                        |                            |
| I get scared if I sleep away from home (13)  | .497                               |   |   |                        |                            |
| I feel nervous when other children or adults watch me when I am performing an activity (for instance: speak, read aloud, play a sport, play a game) (39) | .432                               |   |   |                        |                            |
| I am shy (41)  | .429                               |   |   |                        |                            |
| I worry about being as good as other kids (14)   |                                    | .617                                    |   |                        |                            |
| I worry about going to school (17)   |                                    | .706                                    |   |                        |                            |
| I am scared to go to school (36)   |                                    | .516                                    |   |                        |                            |
| I am worried about future events (33)  |                                    | .496                                    |   |                        |                            |
| I worry about things working out for me (21)   |                                    | .462                                    |   |                        |                            |
| I get stomach ache at school (11)  |                                    | .413                                    |   |                        |                            |
| I worry about things that have already happened (37)   |                                    | .447                                    |   |                        |                            |
| People tell me that I look nervous (9)   |                                    |   | .600                                    |                        |                            |
| I am nervous (7)   |                                    |   | .523                                    |                        |                            |
| People tell me that I worry too much (28)  |                                    |   | .520                                    |                        |                            |



|   |       |        |       |       |       |      |
|---|-------|--------|-------|-------|-------|------|
| I get shaky (19)  |       |        |       |       |       | .481 |
| I am a worrier (23)                                     |       |        |       |       |       | .475 |
| I sweat a lot when I get frightened (22)                |       |        |       |       |       | .432 |
| It is difficult to breathe when I get frightened (1)    |       |        |       |       |       | .719 |
| I feel like I am choking when I get frightened (27)     |       |        |       |       |       | .654 |
| I feel like passing out when I get frightened (6)       |       |        |       |       |       | .592 |
| I feel like I am going crazy when I get frightened (12) |       |        |       |       |       | .426 |
| I feel dizzy when I get frightened (38)                 |       |        |       |       |       | .544 |
| I feel like throwing up when I get frightened (34)      |       |        |       |       |       | .435 |
| I am afraid to be alone in the house (25)               |       |        |       |       |       | .636 |
| I dislike being away from my family (29)                |       |        |       |       |       | .586 |
| I am worried to sleep alone (13)                        |       |        |       |       |       | .575 |
| I follow my father or mother whenever they go out (8)   |       |        |       |       |       | .475 |
| I feel shy with people that I am not familiar with (32) |       |        |       |       |       | .441 |
| Eigen value   | 3.358 | 3.3110 | 3.176 | 3.005 | 2.610 |      |
| % variance  | 9.693 | 9.383  | 7.923 | 8.280 | 6.478 |      |

Using the factor analysis result, the regression analysis was proceeded by computing the total scores of each original item that represented the factor.

**Association between Helicopter Parenting and Anxiety**

Several assumptions were considered including normality assumption (refer to Appendix) before proceeding with the regression analysis. After checking that all assumptions were met, regression analysis was conducted to determine the association between helicopter parenting and anxiety.

Table 3

Regression Analysis Results

|                      | Model 1<br>(Social Anxiety Disorder) |          | Model 2<br>(Significant School Avoidance) |          | Model 3<br>(Generalized Anxiety Disorder) |          | Model 4<br>(Panic Disorder) |         | Model 5<br>(Separation Anxiety) |          |
|----------------------|--------------------------------------|----------|---|----------|---|----------|-----------------------------|---------|---------------------------------|----------|
|                      | Beta (S.E.)                          | P-value  | Beta (S.E.)                               | P-value  | Beta (S.E.)                               | P-value  | Beta (S.E.)                 | P-value | Beta (S.E.)                     | P-value  |
| Helicopter Parenting | -0.736 (0.209)                       | < 0.001* | 1.245 (0.277)                             | < 0.001* | 1.798 (0.277)                             | < 0.001* | -0.215 (0.101)              | 0.034*  | -1.922 (0.300)                  | < 0.001* |

The regression analysis results showed that there was a positive and significant association between helicopter parenting and social anxiety disorder (Beta = -0.736, S.E. = 0.209, p-value = <0.001), significant school avoidance (Beta = 1.245, S.E. = 0.277, p-value = <0.001), generalized anxiety disorder (Beta = 1.798, S.E. = 0.277, p-value = <0.001), panic disorder (Beta = -0.215, S.E. = 0.101, p-value = <0.001), and separation anxiety (Beta = -1.922, S.E. = 0.300, p-value = <0.001).

### Discussion

The current study aimed to investigate the reliability and factor structure of the SCARED instrument and determined its association with helicopter parenting among primary school students in Kedah, Malaysia. The findings revealed that a large portion of the respondents experienced anxiety disorder by reflecting the symptoms of Social Anxiety Disorder (SAD), Significant School Avoidance (SH), Generalized Anxiety Disorder (GD), Panic Disorder (PN), and Separation Anxiety (SA). The overall prevalence of anxiety among primary school students was 60.2%, which is higher than previous studies (Alfakeh et al., 2021; Ang, 2020). Higher score of anxiety among primary school students could be interpreted as a result of school closure and social isolation rising from the COVID-19 outbreak (Lee, 2020).

Consistent with previous studies, anxiety disorder is commonly visible among children (Ang, 2020; Ghandour et al., 2019) and the present data highlight the importance of comprehending the phenomena of anxiety among children and heighten the development of prevention and intervention strategies in a primary school setting. Although it might be cultural and the limited

response scale (3-point Likert) plays a significant role toward the high percentage of anxiety among children in Malaysia, the detailed investigation on the type of anxiety experienced by children reflects the critical need for holistic mental health literacy and further study is warranted to reach a better understanding of children anxiety.

Overall, our findings demonstrate that separation anxiety is found to be common among primary school students. This might be due to the longer school closure resulting from the COVID-19 outbreak, which heightened the psychological distress and increased the fear of infection among children (Pelaez & Novak, 2020). Therefore, spending quality time with children at home by communicating the safe practice of COVID-19 standard operational procedure (SOP) at school and instilling the positive outcome of schooling is necessary to prevent separation anxiety.

The factorial analysis revealed that the SCARED's five-factor structure model is consistent with earlier results (Shin et al., 2020; Scaini et al., 2017; Chan & Leung, 2015) and contradicted previous evidence from Malaysia (Ang, 2020). The results showed that SCARED is the most appropriate instrument to examine the level of anxiety disorders among Malaysian children.

As mentioned in the results section, our findings indicate that helicopter parenting is significantly associated with all types of anxiety among children and is confirmed by several previous studies (Karunaharan et al., 2021; Wang et al., 2021). Therefore, it is plausible to assume that the practice of helicopter parenting tends to limit the number of opportunities for children to explore their surroundings (Karunaharan et al., 2021). This

might increase the possibility of developing severe separation anxiety and less exposure to unfamiliar stimuli, possibly resulting in high levels of social anxiety disorder, generalized anxiety disorder, panic disorder, and significant school avoidance. Furthermore, the findings also support the notion of the General Strain Theory (GST) by indicating that helicopter parenting is a source of strain that leads children to several types of anxiety disorders.

Since parents' anxiety and depression also influences children's psychological well-being (Cheesman et al., 2020), they should always nurture the practice of maintaining a balance between work and home, and be conscious of their mental health conditions constantly. Finding a therapist/counselor can be a more pragmatic solution for parents who are struggling with mental health issues and are cognizant of the availability of effective strategies. It would also help to alleviate anxiety among children through Guided Parents-Delivered Cognitive Behavioral Therapy (GPS-CBT) with the combination of family intrapersonal and interpersonal training (Brown et al., 2017).

The research does have some limitations, which were well considered for. The first is the sample size, which limits generalizability; therefore, further investigation with a larger sample size is warranted for greater investigation. Secondly, more detailed analyses are needed to understand the phenomenon of anxiety among children and the increasing practice of helicopter parenting that could have serious policy implications.

### Conclusion

Anxiety among children is often unnoticed by the parents and teachers, consequently leading toward depression and

dysfunctionality in later life. Therefore, various attempts should be optimized in order to assist children in preventing and overcoming anxiety. Since evidence revealed that children exposed to various stressful contexts such as parental psychological control and dysfunctional families are more prone to suffer from anxiety (Wei & Kendall, 2014), early identification is vital to design effective intervention strategies for greater prevention, psychosocial support, and awareness. Continued efforts are needed to resolve the significant shortage of trained children and adolescent mental health practitioners (Dahlan et al., 2018) and advocate the essence of mental health in a family and school context.

### Acknowledgment

First and foremost, the authors would like to express a heartfelt gratitude to the Guidance and Counselling Teachers for their great assistance in the survey invitation and data collection phase. Special thanks go to the Psychology Research Team, Malaysia for their valuable support and constructive comments.

### References

- Agnew, R. (2001). Building on the foundation of general strain theory: Specifying the types of strain most likely to lead to crime and delinquency. *Journal of Research in Crime and Delinquency*, 38(4), 319–361.
- Ahmadi, A., Mustaffa, M. S., Haghdoost, A., Khan, A. & Latif, A. A. (2015). Cross-cultural adaptation of the Spence Children's Anxiety Scale in Malaysia. *Trends in Psychiatry and Psychotherapy*, 37(1), 37–41.

- Al-Biltagi, M. & Alli Sarhan, E. (2016). Anxiety Disorder in Children: Review. *Journal of Paediatric Care Insight*, 1(1), 18–28.
- Alfakeh, S. A., Gadah, A. A., Alharbi, K. A., Jan, F. M., Hejazi, M. S., Addas, O. K., Alamoudi, M. K. & Al Taifi, A. I. (2021). Childhood anxiety disorders prevalence in Saudi Arabia. *Saudi Medical Journal*, 42(1), 91–94.
- 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.
- 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 Hum. Dev.* 47, 554–562.
- Baumrind D. (1967). Childcare practices antecedent three patterns of preschool behavior. *Genetic Psychology Monographs*, 75(1), 43–88.
- Bhatia, M. S. & Goyal, A. (2018). Anxiety disorders in children and adolescents: Need for early detection. *Journal of Postgraduate Medicine*, 64(2), 75–76.
- Brown, A., Creswell, C., Barker, C., Butler, S., Cooper, P., Hobbs, C. & Thirlwall, K. (2017). Guided parent-delivered cognitive behaviour therapy for children with anxiety disorders: Outcomes at 3- to 5-year follow-up. *The British Journal of Clinical Psychology*, 56(2), 149-159.
- Carruthers, S., Kent, R., Hollocks, M. J. & Simonoff, E. (2020). Brief Report: Testing the Psychometric Properties of the Spence Children's Anxiety Scale (SCAS) and the Screen for Child Anxiety Related Emotional Disorders (SCARED) in Autism Spectrum Disorder. *J. Autism Dev. Disord.* 50, 2625–2632.
- Cartwright-Hatton, S., Tschernitz, N. & Gomersall, H. (2005). Social anxiety in children: social skills deficit, or cognitive distortion? *Behaviour Research and Therapy*, 43(1), 131–141.
- Chan, S. M. & Leung, C. H. (2015). Factor Structure of the Screen for Child Anxiety-Related Emotional Disorders (SCARED) in a Community Sample of Hong Kong Chinese Adolescents. *Child Psychiatry and Human Development*, 46(5), 671–682.
- Cheesman, R., Eilertsen, E.M., Ahmadzadeh, Y.I., Gjerde, L.C., Hannigan, L.J., Havdahl, A., Young, A.I., Eley, T.C., Njølstad, P.R., Magnus, P., Andreassen, O.A., Ystrom, E. & McAdams, T.A. (2020). How important are parents in the development of child anxiety and depression? A genomic analysis of parent-offspring trios in the Norwegian Mother Father and Child Cohort Study (MoBa). *BMC Med.* 18, 1–11.
- Cho, S. & Galehan, J. (2020). Stressful Life Events and Negative Emotions on Delinquency among Korean Youth: An Empirical Test of General Strain Theory Assessing Longitudinal Mediation Analysis. *Int. J. Offender Ther. Comp. Criminol.* 64, 38–62.
- Dahlan, R., Abd Ghani, M. N., Yahaya, R. & Tuan Hadi, T. S. (2018). Child and

- Adolescent Mental Health Service (CAMHS), Terengganu, Malaysia: milestones so far and the paths to the future. *London Journal of Primary Care*, 10(4), 113–117.
- David Lohr, W., Daniels, K., Wiemken, T., Gail Williams, P., Kelley, R. R., Kuravackel, G. & Sears, L. (2017). The screen for Child Anxiety-Related Emotional Disorders is sensitive but not specific in identifying anxiety in children with high-functioning autism spectrum disorder: A pilot comparison to the achenbach system of empirically based assessment scales. *Front. Psychiatry*, 8 (138).
- Dick, D. M., Riley, B. & Kendler, K. S. (2010). Nature and nurture in neuropsychiatric genetics: where do we stand? *Dialogues in Clinical Neuroscience*, 12(1), 7–23.
- Doering, S., Lichtenstein, P., Gillberg, C., Boomsma, D. I., Van Beijsterveldt, T. C. E. M., Ligthart, L., Willemsen, G., De Geus, E., Middeldorp, C. M., Bartels, M., Kuja-Halkola, R. & Lundström, S. (2019). Anxiety at age 15 predicts psychiatric diagnoses and suicidal ideation in late adolescence and young adulthood: Results from two longitudinal studies. *BMC Psychiatry*, 19, 1–11.
- Dyer, M. L., Easey, K. E., Heron, J., Hickman, M. & Munafò, M.R. (2019). Associations of child and adolescent anxiety with later alcohol use and disorders: a systematic review and meta-analysis of prospective cohort studies. *Addiction*, 114, 968–982.
- Ferdinand, R. F., Dieleman, G., Ormel, J. & Verhulst, F. C. (2007). Homotypic versus heterotypic continuity of anxiety symptoms in young adolescents: Evidence for distinctions between DSM-IV subtypes. *J. Abnorm. Child Psychol*, 35, 325–333.
- Ghaffar, S. F. A., Sidik, S. M., Ibrahim, N., Awang, H. & Rampal, L. R. G. (2019). Effect of a school-based anxiety prevention program among primary school children. *International Journal of Environmental Research and Public Health*, 16(24).
- Ghandour, R. M., Sherman, L. J., Vladutiu, C. J., Ali, M. M., Lynch, S. E., Bitsko, R. H. & Blumberg, S. J. (2019). Prevalence and Treatment of Depression, Anxiety, and Conduct Problems in US Children. *Journal of Pediatrics*, 206, 256-267.
- Grills-Taquechel, A. E., Fletcher, J. M., Vaughn, S. R., Denton, C. A. & Taylor, P. (2013). Anxiety and inattention as predictors of achievement in early elementary school children. *Anxiety, stress, and coping*, 26(4), 391–410.
- Hale, W. W., Raaijmakers, Q. A., García-López, L. J., Espinosa-Fernández, L., Muela, J. A. & Díaz-Castela, M. (2013). Psychometric properties of the screen for child anxiety related emotional disorders for socially anxious and healthy Spanish adolescents. *The Spanish Journal of Psychology*, 16.
- Haidt J., Lukianoff G. (2018). *The Coddling of the American Mind: How Good Intentions and Bad Ideas Are Setting Up a Generation for Failure*. New York, NY: Penguin U

- Hong, J. S., Kim, D. H. & Piquero, A. R. (2017). Assessing the links between punitive parenting, peer deviance, social isolation and bullying perpetration and victimization in South Korean adolescents. *Child Abuse & Neglect*, 73, 63-70.
- 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 Hum. Dev.*, 49, 234–243.
- Janssen I. (2015). Hyper-parenting is negatively associated with physical activity among 7-12 year olds. *Preventive Medicine*, 73, 55–59.
- Kaajalaakso, K., Lempinen, L., Ristkari, T., Huttunen, J., Luntamo, T. & Sourander, A. (2021). Psychometric properties of the screen for child anxiety related emotional disorders (SCARED) among elementary school children in Finland. *Scandinavian Journal of Psychology*, 62(1), 34–40.
- Karunaharan, S., Ganaprakasam, C. & Selvarajah, T. (2021). Does Hovering Matter? The Effect of Helicopter Parenting on Adolescents' Suicidal Ideation. *Proc. Int. Conf. Psychol. Stud. (ICPSYCHE 2020)* 530, 209–216.
- Lee, J. (2020). Mental health effects of school closures during COVID-19. *Lancet Child Adolesc. Heal*, 4, 421.
- Li, F., Luo, S., Mu, W., Li, Y., Ye, L., Zheng, X., Xu, B., Ding, Y., Ling, P., Zhou, M. & Chen, X. (2021). Effects of sources of social support and resilience on the mental health of different age groups during the COVID-19 pandemic. *BMC Psychiatry*, 21, 1–14.
- Päären, A., Bohman, H., von Knorring, L., Olsson, G., von Knorring, A.L. & Jonsson, U. (2014). Early risk factors for adult bipolar disorder in adolescents with mood disorders: A 15-year follow-up of a community sample. *BMC Psychiatry*, 14, 18–22.
- Pelaez, M. & Novak, G. (2020). Returning to School: Separation Problems and Anxiety in the Age of Pandemics. *Behav. Anal. Pract*, 13, 521–526.
- Perry N. B., Dollar J. M., Calkins S. D., Keane S. P., Shanahan L. (2018). Childhood self-regulation as a mechanism through which early overcontrolling parenting is associated with adjustment in preadolescence. *Dev. Psychol.* 54, 1542. 10.1037/dev0000536
- Racine, N., McArthur, B. A., Cooke, J. E., Eirich, R., Zhu, J. & Madigan, S. (2021). Global Prevalence of Depressive and Anxiety Symptoms in Children and Adolescents during COVID-19: A Meta-analysis. *JAMA Pediatr.* 175, 1142–1150.
- Russell, P. S., Nair, M. K., Russell, S., Subramaniam, V. S., Sequeira, A. Z., Nazeema, S. & George, B. (2013). ADAd 2: the validation of the Screen for Child Anxiety Related Emotional Disorders for Anxiety Disorders among adolescents in a rural community population in India. *Indian Journal of Pediatrics*, 80 Suppl 2, 139–143.
- Scaini, S., Ogliari, A., De Carolis, L., Bellodi, L., Di Serio, C. & Brombin, C. (2017). Evaluation of mother-child

- agreement and factorial structures of the SCARED questionnaire in an Italian clinical sample. *Frontiers in Psychology*, 8(2), 1–10.
- Scherer, N., Hameed, S., Acarturk, C., Deniz, G., Sheikhan, A., Volkan, S., Örüçü, A., Pivato, I., Aklncl, Patterson, A. & Polack, S. (2020). Prevalence of common mental disorders among Syrian refugee children and adolescents in Sultanbeyli district, Istanbul: Results of a population-based survey. *Epidemiol. Psychiatr. Sci.* 29. e192.
- Seery M. D., Holman E. A., Silver R. C. (2010). Whatever does not kill us: cumulative lifetime adversity, vulnerability, and resilience. *J. Pers. Soc. Psychol.* 99, 1025–1041. 10.1037/a0021344
- Shin, J., Kim, K. M., Lee, K. H., Hong, S. B., Lee, J., Choi, C. H., Han, J. Y., Kim, S. H., Suh, D. E., Cho, S. C. & Kim, J. W. (2020). Psychometric properties and factor structure of the Korean version of the screen for child anxiety related emotional disorders (SCARED). *BMC Psychiatry*, 20, 1–12.
- Sigfusdottir, I. D., Kristjansson, A. L., Thorlindsson, T. & Allegrante, J. P. (2017). Stress and adolescent well-being: the need for an interdisciplinary framework. *Health Promotion International*, 32(6), 1081–1090.
- Smokowski, P. R., Bacallao, M. L., Cotter, K.L. & Evans, C. B. R. (2015). The Effects of Positive and Negative Parenting Practices on Adolescent Mental Health Outcomes in a Multicultural Sample of Rural Youth. *Child Psychiatry Hum. Dev.* 46, 333–345.
- Spielberger, C. D. (1989). *State-Trait Anxiety Inventory: Bibliography* (2nd ed.). Palo Alto, CA: Consulting Psychologists Press.
- Steele J. L. (2016). Race and General Strain Theory: Examining the Impact of Racial Discrimination and Fear on Adolescent Marijuana and Alcohol Use. *Substance Use & Misuse*, 51(12), 1637–1648.
- Steinmayr, R., Crede, J., McElvany, N. & Wirthwein, L. (2016). Subjective well-being, test anxiety, academic achievement: Testing for reciprocal effects. *Front. Psychol.* 6, 1–13.
- Stern, J. A., Gadgil, M. S., Blakeley-Smith, A., Reaven, J. A. & Hepburn, S. L. (2014). Psychometric Properties of the SCARED in Youth with Autism Spectrum Disorder. *Research in Autism Spectrum Disorders*, 8(9), 1225–1234.
- Vigdal, J. S., & Brønnick, K. K. (2022). A Systematic Review of "Helicopter Parenting" and Its Relationship With Anxiety and Depression. *Frontiers in psychology*, 13, 872981. <https://doi.org/10.3389/fpsyg.2022.872981>
- Wang, M., Wu, X. & Wang, J. (2021). Paternal and Maternal Harsh Parenting and Chinese Adolescents' Social Anxiety: The Different Mediating Roles of Attachment Insecurity With Fathers and Mothers. *Journal of Interpersonal Violence*, 36(21-22), 9904–9923.
- Wei, C. & Kendall, P. C. (2014). Child Perceived Parenting Behavior: Childhood Anxiety and Related Symptoms. *Child & Family Behavior Therapy*, 36(1), 1–18.

Xu, J., Ni, S., Ran, M. & Zhang, C. (2017).  
The relationship between parenting  
styles and adolescents' social anxiety in

migrant families: A study in  
Guangdong, China. *Front. Psychol.* 8,  
1–7.