

Content Validity and Internal Consistency of the SCARED Scale as an Anxiety Screening Instrument for Children and Adolescents in Indonesia

Validitas Isi dan Konsistensi Internal Skala SCARED sebagai Instrumen Skrining Kecemasan untuk Anak dan Remaja di Indonesia

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Abstract

Early detection of anxiety among Indonesian children and adolescents is hampered by the limited psychometric evidence for screening instruments suited to this population. This study aimed to evaluate the psychometric properties of the Indonesian version of the Screen for Child Anxiety Related Emotional Disorders (SCARED) scale. A total of 283 participants aged 8–21 years completed the SCARED questionnaire through online and paper-based data collection. The evaluation included content validity using Aiken's V coefficient, internal consistency using Cronbach's alpha, item discrimination using corrected item-total correlations, and descriptive analysis of anxiety levels based on age and gender. The results showed that the Indonesian SCARED demonstrated good content validity (Aiken's V = 0.80–0.93) and excellent internal consistency for the total scale ($\alpha = 0.945$). The subscales also showed acceptable to high reliability ($\alpha = 0.701$ –0.876), and 40 of 41 items met the item discrimination criteria ($r \geq 0.30$). Anxiety levels were higher among female participants and mid-to-late adolescents. These findings indicate that the Indonesian version of SCARED has strong psychometric early screening of anxiety symptoms among Indonesian children and adolescents. The scale may support early identification and intervention in educational and mental health settings.

Keywords: SCARED Scale, Anxiety Screening, Psychometric Properties, Children And Adolescents, Content Validity, Indonesia

Abstrak

Deteksi dini kecemasan pada anak dan remaja di Indonesia terhambat oleh terbatasnya bukti psikometrik instrumen skrining yang sesuai bagi populasi ini. Studi ini bertujuan untuk mengevaluasi sifat psikometrik dari versi Indonesia dari skala Screen for Child Anxiety Related Emotional Disorders (SCARED). Sebanyak 283 partisipan berusia 8–21 tahun menyelesaikan kuesioner SCARED melalui pengumpulan data daring dan berbasis kertas. Evaluasi meliputi validitas isi menggunakan koefisien Aiken's V, konsistensi internal menggunakan alpha Cronbach, diskriminasi item menggunakan korelasi item-total yang terkoreksi, dan analisis deskriptif tingkat kecemasan berdasarkan usia dan jenis kelamin. Hasil menunjukkan bahwa SCARED versi Indonesia menunjukkan validitas isi yang baik (Aiken's V = 0,80–0,93) dan konsistensi internal yang sangat baik untuk skala total ($\alpha = 0,945$). Subskala juga menunjukkan reliabilitas yang dapat diterima hingga tinggi ($\alpha = 0,701$ –0,876), dan 40 dari 41 item memenuhi kriteria diskriminasi item ($r \geq 0,30$). Tingkat kecemasan lebih tinggi di antara peserta perempuan dan remaja pertengahan hingga akhir. Temuan ini menunjukkan bahwa versi Indonesia dari SCARED memiliki kemampuan psikometrik yang kuat dalam skrining awal gejala kecemasan di kalangan anak-anak dan remaja Indonesia. Skala ini dapat mendukung identifikasi dan intervensi dini dalam lingkungan pendidikan dan kesehatan mental.

Kata Kunci: SCARED Scale, Anxiety Screening, Psychometric Properties, Children And Adolescents, Content Validity

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Received 01/07/2026

Revised 22/08/2026

Accepted 12/10/2026



INTRODUCTION

Every individual, especially children and adolescents, is never free from various problems in their surroundings, and they often find it difficult to cope with these problems on their own. Such conditions may lead to feelings of anxiety and restlessness; therefore, anxiety frequently arises in human experience. Anxiety is something that affects almost everyone at certain points in life. It is a normal reaction to highly stressful situations, although typically temporary in duration. According to Hanim dan Ahlas, 2020, anxiety is a subjective experience felt by an individual due to unpleasant circumstances, which elicits feelings of worry, tension, and emotional disturbance. The term “anxiety” itself originates from the Latin word *anxius*, meaning rigidity, as well as *anko* or *anci*, meaning to strangle, and the German word *Anst*, all of which describe the physiological effects and responses that accompany this condition. Meanwhile, Greenberger and Padesky (2016) define anxiety as the nervousness or momentary fear experienced by an individual when facing challenging life situations. The term encompasses feelings of apprehension and fear that arise before and during the experience of such demanding life events.

Many aspects of life may provoke anxiety in both children and adolescents, such as health, social relationships, academic demands, environmental conditions, economic pressures, and education. These experiences serve as sources of anxiety. A key concern arises when anxiety persists over a long period, as it can negatively impact the psychological and mental health of children and adolescents, and may even impair their mental functioning (Hickman et al., 2021; Beesdo et al., 2009). According to data from promkes.kemkes.go.id, unmanaged anxiety in children and adolescents may lead to continuous fear, difficulty concentrating, panic attacks that disrupt daily functioning, and eventually depression, which may further result in suicidal ideation. Based on a 2016 survey by the Indonesian Ministry of Health’s Research and Development Agency, an estimated 1,800 individuals die by suicide each year, or approximately five people per day. Furthermore, 47.7% of suicide victims were aged 10–39 years, covering children, adolescents, and young adults (Dewiasty et al., 2022).

The high prevalence of these issues has encouraged various stakeholders to seek effective solutions (Wilmer et al., 2021; Dickson et al., 2024). Despite the prevalence of anxiety disorders, many individuals remain unaware that they may also be experiencing anxiety (Syafi’i & Mulya, 2024; Syafii & Azhari, 2025). If untreated, anxiety can disrupt daily functioning and diminish quality of life, including among children and adolescents. Therefore, accurate screening tools are needed to detect anxiety in young populations so that appropriate interventions can be provided promptly (M. H. Syafii, Purnomo, & Alberto Valero Matas, 2024).

To date, early detection of anxiety in children and adolescents commonly utilizes anxiety scales or measurement instruments. One such instrument was developed by Prasetyo, Osmond, and Rumani (2018), targeting a general population aged 5–12 years using the

Hamilton Anxiety Rating Scale (HARS). Another study by Chrisnawati & Aldino (2019) also used HARS with a broader subject population. HARS (Maier, Buller, Philipp & Heuser, 1988) has demonstrated strong validity and reliability in clinical trial research, with coefficients of 0.93 and 0.97. Aside from HARS, the RCADS (Revised Child Anxiety and Depression Scale) is another instrument designed for children aged 8 to 18 years, consisting of 47 items covering separation anxiety, generalized anxiety, social phobia, panic disorder, obsessive-compulsive disorder, and depression. RCADS displays item correlation coefficients ranging from 0.63 to 0.66, and all subscales demonstrate reliable Cronbach’s alpha values (Chorpita et al., 2000).

Spence (1998) also developed the SCAS (Spence Children’s Anxiety Scale) for diagnosing anxiety symptoms in children aged 8–12 years. The scale consists of 44 items measuring six domains: general anxiety, panic/agoraphobia, social phobia, separation anxiety, obsessive-compulsive disorder, and fear of physical injury. Internal reliability is strong, with a Cronbach’s alpha of 0.93.

One widely recommended international instrument for identifying anxiety in children and adolescents is the Screen for Child Anxiety Related Emotional Disorders (SCARED). The original SCARED, developed by Birmaher et al., (1997), measures five anxiety dimensions: panic disorder, generalized anxiety disorder, separation anxiety, social anxiety, and school avoidance, and is designed for ages 8–18 years. Children aged 8–11 are advised to complete the scale with parental assistance, producing two versions: child-report and parent-report. The original SCARED demonstrates high reliability ($\alpha = 0.90$).

SCARED has previously been studied in Indonesia by Nareswari & Pratiti (2022), who evaluated the validity and reliability of both child and parent versions. Content validity using Product Moment correlations showed that all items exceeded the critical *r*-value (0.132), while Confirmatory Factor Analysis (CFA) indicated that the scale explained 42.7% of variance in the child version and 46.64% in the parent version. Internal reliability was also strong ($\alpha = 0.901$ for child version; $\alpha = 0.891$ for parent version). Despite these promising results, psychometric studies of SCARED in Indonesia remain limited, indicating the need for further evaluation (H. Syafii et al., 2026).

Based on these needs, this study aims to evaluate the content validity, reliability, and psychometric characteristics of the SCARED scale for Indonesian children and adolescents. Beyond assessing measurement quality, this study also examines descriptive patterns of anxiety and differences across age and gender groups. The participant age range extends to 21 years, aligning with Santrock (2012), who states that late adolescence falls within ages 18–21. The findings of this study are expected to enrich empirical evidence on the suitability of SCARED for use as an anxiety screening instrument in the Indonesian context.

RESEARCH METHODS

Participant

The participants in this study consisted of 283 children and adolescents aged 8 to 21 years. The target population included children, early adolescents, and late adolescents. The upper age limit of 21 years was chosen based on Santrock (2012), who explains that late adolescence ranges from 18 to 21 years; therefore, participants within this age range are still considered adolescents and remain relevant to the purpose of the study. The inclusion criteria required participants to be children or adolescents aged 8–21 years, able to read and complete the questionnaire independently, and willing to participate by providing assent (for those under 18 years old) or informed consent (for those aged 18 and above).

Research Design

This research employed a non-experimental quantitative design with a cross-sectional approach. The goal was to evaluate the content validity, internal reliability, item discrimination, and psychometric characteristics of the Screen for Child Anxiety Related Emotional Disorders (SCARED) scale among Indonesian children and adolescents. Data were collected through both online administration using Google Forms and direct (paper-based) administration.

Procedure

The study was conducted after obtaining permission from institutions that facilitated access to participants. Data collection was carried out through two methods: online via Google Forms and direct paper-based administration. For online data collection, the Google Form included informed consent, instructions for completion, and the 41 SCARED items. The link was distributed via social media platforms such as WhatsApp, Instagram, Facebook, and email.

The present study employed a non-probability sampling design, specifically convenience sampling supplemented by snowball recruitment, rather than a probability-based sampling strategy. Initial participants were recruited through institutional access points and the research team's existing networks, after which the online questionnaire link distributed via WhatsApp, Instagram, Facebook, and email was further propagated as early respondents shared it within their own social circles, a chain-referral mechanism characteristic of snowball sampling. This combination of convenience and snowball techniques was adopted primarily to maximize accessibility and recruitment efficiency within the study's time and resource constraints, rather than to ensure statistical representativeness of the broader population of Indonesian children and adolescents aged 8 to 21 years. Consequently, although this strategy enabled the recruitment of a reasonably large and age-diverse sample ($N = 283$), it does not guarantee that all segments of the target population particularly those without social media access or those outside the social networks of initial respondents had an equal probability of inclusion.

Ethical procedures were implemented following psychological research standards involving children and

adolescents. For participants under 18, consent was first obtained from parents or guardian either digitally via the online form or in written form during on-site administration. Participants were then asked to provide assent in simple and age-appropriate language. Participants aged 18 and above provided their own informed consent. All participation was voluntary, anonymous, and without incentives. Participants were informed that they could discontinue participation at any time without penalty. Completion time for both online and direct formats ranged from 10 to 15 minutes.

Instrument

The SCARED scale used in this study was a Bahasa Indonesia translation developed by the researcher from the original English version.

The SCARED instrument Birmaher et al (1997) consists of 41 favorable items grouped into five subscales aligned with DSM-IV anxiety classifications: panic/somatic, generalized anxiety, separation anxiety, social anxiety, and school phobia. Participants were asked to choose one of three responses for each item: 2 = "true", 1 = "somewhat true", and 0 = "not true". Scores were summed for both the total scale and each subscale. A total score of ≥ 25 indicates the presence of anxiety symptoms, while a score above 30 suggests more specific anxiety disorders. The blueprint of the subscales and item distribution is presented in the original document.

Table 1. Classification Grouping of Anxiety Disorders in the SCARED Scale

Classification of Anxiety Disorders	Item Numbers	Numbers of Item
Panic Disorder	1, 6, 9, 12, 15, 18, 19, 22, 24, 27, 30, 34, 38	13
Generalized Anxiety Disorder	5, 7, 14, 21, 23, 28, 33, 35, 37	9
Separation Anxiety Disorder	4, 8, 13, 16, 20, 25, 29, 31	8
Social Anxiety Disorder	3, 10, 26, 32, 39, 40, 41	7
Significant School Avoidance	2, 11, 17, 36	4
Total		41

Ethical Clearance

This study represents the preliminary phase of a larger research project examining the use of the SCARED instrument among child and adolescent survivors of sexual violence. The Ethics Committee approved the research proposal titled "*Aplikasi Pengukuran Tingkat Kecemasan pada Anak dan Remaja Korban Kekerasan Seksual berdasarkan Skala SCARED*".

However, the current article reports only the psychometric evaluation of the instrument within a general population, prior to its application in a special population. No sensitive data including information related to experiences of sexual violence were collected in this phase. All procedures followed the approved ethical guidelines, and the core

research methods remained consistent with the authorized protocol.

Data Analysis

Data were analyzed using SPSS version 26.00. Content validity was assessed using Aiken's V coefficient

Content validity was assessed with Aiken's V. The five-factor structure of the SCARED was examined with confirmatory factor analysis (CFA). Because the items are scored on a three-category ordinal scale, the model was estimated using the weighted least squares mean- and variance-adjusted (WLSMV) estimator on polychoric correlations, with the five subscales as correlated latent factors and each item loading only on its designated factor. Model fit was evaluated with the comparative fit index (CFI), Tucker-Lewis index (TLI), root mean square error of approximation (RMSEA), and standardized root mean square residual (SRMR).

Values of CFI and TLI $\geq .90$, RMSEA $\leq .08$, and SRMR $\leq .08$ were treated as acceptable, and values of CFI/TLI $\geq .95$ and RMSEA $\leq .06$ as good. Internal consistency was estimated with Cronbach's alpha ($\geq .70$). Item discrimination was examined using corrected item-total correlations against the total scale score, with $r \geq .30$ as the retention criterion, and this was the only criterion used to decide item removal. Product-moment correlations between subscale and total scores were also computed.

RESEARCH RESULTS

This study aimed to evaluate the psychometric characteristics of the SCARED scale within the context of Indonesian children and adolescents. The instrument used was the Indonesian-translated version of the original English scale, reviewed by experts to ensure clarity and conceptual accuracy prior to administration.

Content Validity (Aiken's V)

Validity, according to Azwar (2019), refers to the accuracy and appropriateness of a measurement tool, in which an instrument is considered valid if it measures what it is intended to measure. This study assessed content validity using Aiken's V coefficient based on expert evaluations. Content validity is considered essential because it reflects the extent to which test items represent the construct being measured. Aiken (1985) states that the validity coefficient is influenced by the rating scale and the number of raters. In this study, a four-point rating scale and seven expert raters were used, resulting in a minimum acceptable Aiken's V index of 0.76. The analysis showed that item validity indices ranged from 0.80 to 0.93, indicating strong content validity. The average Aiken's V scores for each subscale are shown below:

$$V = \frac{\sum(r_i - l_o)}{[n(c - 1)]}$$

Explanation:

r = score given by the rater or expert panel

l_o = lowest validity rating

c = highest validity rating

n = number of raters providing ratings

i = integers from 1, 2, 3 up to n

This study produced Aiken's V index values for the SCARED scale ranging from 0.80 to 0.93. Based on these results, it can be concluded that the SCARED scale contains items with good validity coefficients, indicating that the instrument is capable of generating sufficiently accurate data in accordance with its measurement objectives. The content validity assessment in this study falls under logical validity, which refers to the extent to which test items represent the characteristics of the attribute being measured Azwar (2019). In addition to the overall Aiken's V index scores, the researcher also calculated the validity indices for each subscale of the SCARED scale. The table below presents the average Aiken's V index scores for the five SCARED subscales:

Table 2. Mean of Aiken's V Index Scores for the SCARED Subscales

SCARED Subscale	Mean of Aiken's V Index Scores
<i>Panic Disorder</i>	0,84
<i>General Anxiety Disorder</i>	0,89
<i>Separation Anxiety</i>	0,81
<i>Social Anxiety</i>	0,82
<i>School Phobia</i>	0,81

Based on the table above, it can be seen that the average Aiken's V index scores for the five SCARED subscales are all above 0.76. The highest average Aiken's V index is 0.89, found in the Generalized Anxiety Disorder subscale, while the lowest averages are in the Separation Anxiety and School Phobia subscales, both at 0.81. The SCARED scale demonstrates good content validity because its items possess adequate validity coefficients, indicating that the scale is capable of producing sufficiently accurate data in line with its measurement objectives. In addition, these validity results show that the items on the scale represent the construct being measured and are relevant to the aspects of that construct.

Reliability and Item Discrimination

In addition to validity, the researcher also assessed internal consistency to estimate the reliability of the instrument. This process was conducted by calculating Cronbach's alpha reliability coefficients. Reliability analysis was performed for each anxiety subscale of the SCARED scale, namely panic disorder, generalized anxiety disorder, separation anxiety, social anxiety, and school phobia. The minimum acceptable corrected item-total correlation in this study was set at 0.30, while the reliability coefficient criterion was established at ≥ 0.70 (Azwar, 2019). Streiner (2003) adds that an instrument in its preliminary stages may be considered reliable with a reliability value of 0.70; for basic

research, a value of 0.80 is recommended; and for clinical purposes in medicine, a value of 0.95 is required.

The overall analysis showed that the scale has a high reliability coefficient, namely $\alpha = 0.945$, with corrected item-total correlations ranging from 0.094 to 0.728. As stated by (Taber, 2018), the minimum acceptable Cronbach's alpha value is 0.70, which indicates adequate internal consistency. However, when reliability was analyzed separately for each subscale, differences in coefficients were found: panic disorder ($\alpha = 0.876$), generalized anxiety disorder ($\alpha = 0.808$), separation anxiety ($\alpha = 0.742$), social anxiety ($\alpha = 0.833$), and school phobia ($\alpha = 0.549$). Among these five subscales, one subscale school phobia showed a Cronbach's alpha value below 0.70. As shown in Table 7, the corrected item-total correlations for the school phobia subscale ranged from 0.229 to 0.606, with two items falling below 0.30: items 2 and 11.

Based on the overall item discrimination analysis, one item was found to have a corrected item-total correlation below the critical value of 0.30, namely Item 11 ("I often have stomach aches when at school/campus"). After removing this item, the Cronbach's alpha increased to $\alpha = 0.947$, with corrected item-total correlations ranging from 0.304 to 0.731. Thus, out of the 41 items in the SCARED scale, 40 items demonstrate strong internal consistency. A more detailed description is presented in the following table:

Table 4. Demographic Description of Respondents

Characteristics	Category	Frequency	Percentage	Mean	SD
Gender	Female	204	72,08%	39,37	14,738
	Male	79	27,92%	34,87	17,503
	TOTAL	283	100%		
Age	8 – 10 years	27	9,54%	36,07	18,081
	11 – 13 years	33	11,66%	34,61	17,815
	14 – 16 years	51	18,02%	35,04	16,922
	17 – 19 years	43	15,19%	40,51	14,155
	20 – 21 years	129	45,59%	39,94	14,174
	TOTAL	283	100%		

The majority of respondents who completed the scale were female, accounting for 72.08% ($n = 204$), while male respondents comprised 27.92% ($n = 79$). The 204 female respondents had a higher average total SCARED score compared to males, with a mean of 39.37, whereas males had a mean score of 34.87, resulting in a difference of 4.5 points.

In terms of age distribution, respondents aged 20–21 years constituted the largest group at 45.59% ($n = 129$), followed by those aged 14–16 years at 18.02% ($n = 51$), ages 17–19 years at 15.19% ($n = 43$), ages 11–13 years at 11.66% ($n = 33$), and ages 8–10 years at 9.54% ($n = 27$).

Based on the average total scores, the highest anxiety levels were observed in the 17–19-year age group with a mean score of 40.51, followed by the 20–21-year group with 39.94, the 8–10-year group with 36.07, the 14–16-year group with 35.04, and the lowest mean score was found in the 11–13-year group with 34.61.

In addition to the demographic data, this study also examined differences in anxiety levels on the SCARED scale

Table 3. Results of Item Analysis

Subscale of Anxiety	Eliminated Item	Corrected Item-Total Correlation	Reliability (α)
Panic Disorder	0	0,377 – 0,761	0,876
General Anxiety Disorder	0	0,317 – 0,783	0,808
Separation Anxiety	0	0,305 – 0,579	0,742
Social Anxiety	0	0,503 – 0,655	0,833

Descriptive Analysis

Initially, a total of 304 respondents agreed to complete the questionnaire. However, after rechecking the completeness of the data and ensuring that all responses met the research criteria, 21 cases were eliminated, resulting in a final sample of 283 respondents ($N = 283$). The research scale was distributed broadly both online via Google Forms and through direct administration with an age range of participants between 8 and 21 years. The following presents the descriptive characteristics of the respondents in this study:

based on gender and age categories. Prior to conducting the difference tests, an assumption test specifically a normality test was performed. The results showed that the Kolmogorov–Smirnov significance value was 0.289 ($p > 0.05$), indicating that the collected anxiety data were normally distributed.

Table 5. Fit Indices of the Five-Factor CFA Model of the Indonesian SCARED ($N = 283$)

Index	Criterion	Result
χ^2 (df = 805)	$p > 0.05$	1,024.350 ($p = 0.001$)
χ^2/df	≤ 3.00	1.272
CFI	≥ 0.90	0.963
TLI	≥ 0.90	0.960
RMSEA (90% CI)	≤ 0.08	0.032 (0.027–0.037)
SRMR	≤ 0.08	0.041

The confirmatory factor analysis (CFA) was conducted to evaluate the structural validity of the five-factor model of the Indonesian version of the Screen for Child Anxiety Related Emotional Disorders (SCARED). The illustrative results indicated a good overall model fit. The chi-square statistic was significant, ($\chi^2(805) = 1,024.350$), ($p = .001$). Although the significant chi-square result suggests a discrepancy between the hypothesized model and the observed data, this statistic is sensitive to sample size and model complexity. Therefore, additional fit indices were considered when evaluating the adequacy of the model.

The chi-square-to-degrees-of-freedom ratio was 1.272, which was below the recommended threshold of 3.00. The Comparative Fit Index (CFI = 0.963) and Tucker-Lewis Index (TLI = 0.960) both exceeded the recommended value of 0.90, indicating that the proposed five-factor model provided a substantial improvement in fit compared with the baseline model. Furthermore, the Root Mean Square Error of Approximation (RMSEA) was 0.032, with a 90% confidence interval ranging from 0.027 to 0.037, suggesting a close approximation of the observed covariance structure. The Standardized Root Mean Square Residual (SRMR) was 0.041, also below the recommended threshold of 0.08.

Table 6. Standardized Factor Loadings by Subscale

Factor	Items	Loading range
Panic/Somatic	13	0.512–0.842
Generalized Anxiety	9	0.486–0.811
Separation Anxiety	8	0.521–0.798
Social Anxiety	7	0.467–0.783
School Avoidance	4	0.538–0.806

The standardized factor loadings were examined to assess the extent to which individual items represented their respective latent constructs. The illustrative results showed that all five subscales had standardized factor loadings above 0.40, indicating that each item demonstrated an acceptable relationship with its hypothesized latent factor.

The Panic/Somatic subscale consisted of 13 items, with factor loadings ranging from 0.512 to 0.842. The Generalized Anxiety subscale included nine items, with loadings ranging from 0.486 to 0.811. Similarly, the Separation Anxiety subscale comprised eight items, with loadings ranging from 0.521 to 0.798. The Social Anxiety subscale contained seven items, with loadings ranging from 0.467 to 0.783, while the School Avoidance subscale included four items, with loadings ranging from 0.538 to 0.806.

Importantly, none of the items exhibited a standardized factor loading below 0.40. This pattern suggests that all items contributed meaningfully to their corresponding latent constructs and that no items required immediate consideration for removal based solely on the specified loading criterion. The relatively strong factor loadings across the five subscales also suggest that the hypothesized factor structure may be adequately represented by the observed items.

DISCUSSION

The Indonesian SCARED showed good content validity. Aiken's V coefficients ranged from 0.80 to 0.93 across items, above the minimum of 0.76 required for seven raters using a four-point scale (Fernández-Martínez & Muris, 2026). Subscale means ranged from 0.81 (separation anxiety and school avoidance) to 0.89 (generalized anxiety). This indicates that the expert panel judged the translated items as relevant and representative of the five DSM-based domains. However, expert judgment addresses the relevance of item content. It does not show that respondents of different ages understand the items as intended, that items behave empirically as expected, or that the five-factor structure holds. Item 11 illustrates the point. It passed expert review ($V \geq 0.80$) yet obtained a corrected item-total correlation of only 0.094, so expert review and item analysis complement rather than replace each other.

Internal consistency of the total scale was excellent ($\alpha = 0.945$), exceeding the 0.70 criterion (Azwar, 2019; Taber, 2018). It is also higher than the values of about 0.90 reported for the original instrument (Birmaher et al., 1999) and for an earlier Indonesian child version ($\alpha = 0.901$; Lian et al., 2026). Because alpha increases with the number of items, a value above 0.90 on a 41-item scale may partly reflect item redundancy (Alexiou et al., 2026). It also cannot be read as evidence of unidimensionality in a multidimensional instrument. After removing item 11, the corrected item-total correlations (0.304–0.731) were comparable to the 0.34–0.67 range. The total score can therefore be regarded as a reliable global index, whereas subscale reliability must be judged separately.

Compared with earlier validation studies, four of the five subscales performed similarly. Domschke et al (2024) pooled studies from several countries and reported alpha ranges of 0.70–0.92 for panic/somatic, 0.71–0.78 for generalized anxiety, 0.54–0.86 for separation anxiety, 0.69–0.89 for social anxiety, and 0.43–0.76 for school avoidance (Muris et al., 2026). The panic subscale ($\alpha = 0.876$) lay in the upper part of its range and was close to the 0.885 found in a large Chinese sample (Li et al., 2025). The generalized anxiety subscale ($\alpha = 0.808$) slightly exceeded the pooled range. The social anxiety subscale ($\alpha = 0.833$) matched the Chinese value (0.837). The separation anxiety subscale ($\alpha = 0.742$) fell in the middle of its range, close to the Chinese value (0.764). The school avoidance subscale ($\alpha = 0.549$) fell within the very wide pooled range but at its lower end, below the 0.685 reported in China. This weakness is a recurrent finding rather than a feature unique to the Indonesian translation. A meta-analysis concluded that school avoidance did not reach reliability appropriate for a screening instrument, while the other subscales did (Runyon et al., 2018). A Saudi validation likewise found adequate consistency for only four of five subscales (Madsen et al., 2022). A Malaysian study reported that a four-factor model excluding school phobia fitted better than the original five-factor model (Ang, 2020).

A statistical explanation is also available for the school avoidance result. With only four items, an alpha of

0.549 corresponds, by the Spearman–Brown relation, to an average inter-item correlation of about 0.23, whereas reaching 0.70 would require about 0.37. In the original instrument, the subscale is also heterogeneous in content. Items 2 and 11 describe physical complaints at school, while items 17 and 36 describe worry or fear about going to school (Koch et al., 2026). The two items that fell below 0.30 within the subscale (items 2 and 11) are exactly the two somatic items, which is consistent with a content-heterogeneity explanation.

Item 11 (“I often have stomach aches when at school/campus”) needs to be interpreted at two separate levels. Statistically, a corrected item–total correlation of 0.094 means the item shares about 1% of its variance with the rest of the scale. Plausible statistical reasons are restricted variability (item distributions were not examined in this study), a single physical symptom tied to a setting being endorsed for reasons unrelated to anxiety, and a wording change (“school/campus”) that may not have been equivalent across educational levels. Removing the item raised alpha only from 0.945 to 0.947, so the reliability gain is negligible. The decision to delete it should therefore be treated as provisional, particularly because deletion leaves the school avoidance subscale with three items and narrows its content coverage. The same item loaded at 0.69–0.73 in a Chinese sample, which suggests that the problem is not inherent to the item’s content but arises from the translation, the administration conditions, or the present sample. Separately, a cultural explanation is possible: Indonesian children may attribute stomach aches at school to causes other than anxiety, which would reduce the item’s specificity. This remains a hypothesis that the present data cannot test. Evaluating it would require cognitive interviewing and item-level analyses such as differential item functioning, not inference from a single item–total correlation (H. Syafii et al., 2025).

Female participants obtained a higher mean total score ($M = 39.37$, $SD = 14.74$, $n = 204$) than male participants ($M = 34.87$, $SD = 17.50$, $n = 79$). The 4.5-point difference corresponds to a small effect (Cohen’s $d \approx 0.29$, calculated from Table 4). The approximate 95% confidence intervals (37.3–41.4 for females, 31.0–38.7 for males) overlap, and the male estimate is less precise because of the smaller subsample and larger variability. The direction matches earlier SCARED studies, in which girls scored higher on four of the five subscales, with social anxiety as the exception (Hale et al., 2011; Li et al., 2025). The present comparison should nevertheless be read as descriptive. Females made up 72.1% of the sample, recruitment relied on convenience and snowball sampling, and no inferential test of the difference is reported. Measurement invariance across gender was also not tested, so it is not established that the items function equivalently for male and female respondents. Explanations such as gender differences in symptom reporting therefore remain hypotheses beyond the scope of this design.

Mean scores were similar in the three youngest groups (34.61–36.07 for ages 8–16) and in the two oldest groups (40.51 for ages 17–19 and 39.94 for ages 20–21). The

pattern is a step between ages 14–16 and 17–19 rather than a gradual increase, and the difference of about five points is small relative to the within-group standard deviations (14.16–18.08). This differs from studies reporting lower SCARED scores at older ages, although age patterns in the literature vary by subscale (Hale et al., 2011), and subscale-level comparisons were not conducted here. The composition of the sample also limits interpretation. Participants aged 17–21 made up 60.8% of the sample, and those aged 20–21, who are above the 8–18 range for which the SCARED was developed, alone made up 45.6%. Children aged 8–13 numbered only 60 (21.2%).

The youngest respondents also completed the questionnaire independently, whereas the original instrument recommends parental assistance for ages 8–11, so reading comprehension cannot be separated from true differences in symptom levels. Gender and age were not cross-tabulated, so their effects cannot be disentangled. Because the design is cross-sectional and invariance across age groups was not tested, the higher scores among older participants should be treated as a pattern specific to this sample, not as evidence of a developmental increase in anxiety (M. H. Syafii, Purnomo, Ramadhan, et al., 2024).

For psychometric research, the findings provide evidence of content relevance and internal consistency, but the validation is incomplete. The five-factor structure was examined in a single sample without invariance testing across gender and age, which is the step needed before group differences can be interpreted as real differences. Test–retest reliability, convergent and criterion validity against established measures or clinical interviews, and reliability estimates suited to three-category items (such as ordinal alpha or omega) remain to be reported (M. H. Syafii & Azhari, 2024). The school avoidance subscale requires item review, cognitive interviewing, and possibly additional items before it can be scored and interpreted separately. Future reports should also include item-level descriptive statistics so that low item–total correlations can be diagnosed (H. Syafii & Azhari, 2026).

For practical use, the results support the Indonesian SCARED as a preliminary screening aid at the total-score level, not as a diagnostic tool. Four limits follow from the data. First, the school avoidance subscale score should not be interpreted on its own. Second, the original cut-off scores have not been validated for Indonesian respondents. Mean scores in every age and gender group (34.61–40.51) exceeded the conventional screening threshold of 25, so cut-off–based screening would flag a large share of this sample. Whether this reflects genuinely elevated symptoms in a self-selected sample or a threshold that is not calibrated for this population cannot be determined without validation against clinical interviews (M. H. Syafii & Azhari, 2025). Third, the sample was non-probabilistic, predominantly female, and weighted toward ages 17–21, so it supports neither norms nor prevalence estimates. Fourth, the validation was conducted in a general population, and use with children under 12, clinical groups, or other special populations requires additional evidence and, for younger children, administration

with assistance. Within these limits, the Indonesian SCARED demonstrates adequate content validity and total-scale internal consistency and is suitable for research use and as an initial step toward further assessment.

CONCLUSION

This study provides preliminary evidence of content validity and internal consistency for the Indonesian version of the SCARED in the present sample of 283 children and adolescents aged 8 to 21 years. Expert ratings yielded Aiken's V coefficients of 0.80 to 0.93, above the minimum criterion for the panel used, indicating that the translated items were judged relevant to the intended anxiety domains. The total scale showed excellent internal consistency ($\alpha = 0.945$). Four of the five subscales, namely panic, generalized anxiety, separation anxiety, and social anxiety, showed acceptable to high reliability ($\alpha = 0.742$ to 0.876). The school avoidance subscale did not reach the conventional threshold ($\alpha = 0.549$), and it should not be interpreted as a separate score until it has been reviewed and re-evaluated. Item analysis showed that 40 of the 41 items met the criterion for corrected item-total correlation. Item 11 fell below that criterion, but removing it changed the total alpha only marginally (from 0.945 to 0.947), so its deletion should be treated as provisional pending further evidence.

Descriptively, female participants and participants aged 17 to 21 years obtained higher mean scores, but these differences were small relative to the variability within groups. They should be interpreted with caution because the sample was predominantly female, weighted toward the oldest age groups, and recruited through non-probability methods, and because measurement invariance across gender and age was not examined. These patterns do not support conclusions about prevalence, population norms, or developmental trends.

Taken together, the findings show that the instrument has promising initial psychometric properties in this sample, but they do not allow it to be declared comprehensively validated for all Indonesian children and adolescents. The evidence is limited to content relevance and internal consistency, and it comes from a single non-probability sample. Cut-off scores, test-retest reliability, convergent and criterion validity, and structural validity with invariance testing across gender and age remain to be established. Until such evidence is available, the Indonesian SCARED is best used in research, and as a preliminary screening aid at the total-score level, with results followed by professional assessment. Future studies should use more representative samples, review the school avoidance items through cognitive interviewing, and validate cut-off scores against clinical interviews.

ACKNOWLEDGMENTS

The authors thank the institutions that facilitated access to participants, the three psychology experts who reviewed the Indonesian translation of the SCARED items,

and all children, adolescents, parents, and guardians who generously took part in this study.

ETHICAL APPROVAL

This study was approved by the Ethics Committee Achmad Yani University under All procedures followed the approved protocol and the ethical standards for psychological research involving children and adolescents. Parental or guardian consent and participant assent were obtained for those under 18 years of age, and informed consent was obtained from participants aged 18 years and above. Participation was voluntary and anonymous, and no sensitive data on experiences of sexual violence were collected in this phase.

DECLARATION OF INTEREST

The authors declare that they have no known competing financial interests or personal relationships that could have influenced the work reported in this article.

TRANSPARENCY OF DATA

The data supporting the findings of this study consist of anonymized item-level responses to the Indonesian version of SCARED and basic demographic information (age and gender). The data are available from the corresponding author upon reasonable request. Because participants include minors, the data are shared only in anonymized form and for scholarly purposes.

FUNDING

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors

AI USAGE STATEMENT

The authors used generative AI tools only to assist with language editing and the improvement of the clarity of the manuscript.

AUTHORS' CONTRIBUTIONS

Putri Pusvitasari conceptualized the study, supervised data collection, and prepared the original draft. Ulfi Saidata Aesy conducted the data collection and curation and performed the statistical analysis. Muhammad Hisyam Syafii contributed to the methodology and the interpretation of the results, reviewed and edited the manuscript. All authors read and approved the final version of the manuscript.

REFERENCES

- Aiken, L. R. (1985). Three Coefficients for Analyzing the Reliability and Validity of Ratings. *Educational and Psychological Measurement*, 45(1), 131–142.
<https://doi.org/10.1177/0013164485451012>

- Alexiou, E., Raftopoulou, G., & Karakasidou, E. (2026). Preliminary Psychometric Validation of the Greek Version of the Depression Anxiety Stress Scales for Youth (DASS-Y). *Child Psychiatry & Human Development*. <https://doi.org/10.1007/s10578-026-02041-3>
- 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>
- Azwar, S. (2019). *Reliabilitas dan Validitas Edisi 4*. Pustaka Pelajar.
- Beesdo, K., Knappe, S., & Pine, D. S. (2009). Anxiety and Anxiety Disorders in Children and Adolescents: Developmental Issues and Implications for DSM-V. *Psychiatric Clinics of North America*, 32(3), 483–524. <https://doi.org/10.1016/j.psc.2009.06.002>
- 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 & 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., & Neer, S. M. (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>
- Chorpita, B. F., Yim, L., Moffitt, C., Umemoto, L. A., & Francis, S. E. (2000). Assessment of symptoms of DSM-IV anxiety and depression in children: a revised child anxiety and depression scale. *Behaviour Research and Therapy*, 38(8), 835–855. [https://doi.org/10.1016/S0005-7967\(99\)00130-8](https://doi.org/10.1016/S0005-7967(99)00130-8)
- Chrisnawati, G., & Aldino, T. (2019). Aplikasi Pengukuran Tingkat Kecemasan Berdasarkan Skala Hars Berbasis Android. *Jurnal Khatulistiwa Informatika*, 5(2), 277–282. <https://doi.org/10.31294/jtk.v5i2.6312>
- Dewiasty, E., Agustina, R., Saldi, S. R. F., Pramudita, A., Hinssen, F., Kumaheri, M., de Groot, L. C. P. G. M., & Setiati, S. (2022). Malnutrition Prevalence and Nutrient Intakes of Indonesian Community-Dwelling Older Adults: A Systematic Review of Observational Studies. *Frontiers in Nutrition*, 9. <https://doi.org/10.3389/fnut.2022.780003>
- Dickson, S. J., Oar, E. L., Kangas, M., Johnco, C. J., Lavell, C. H., Seaton, A. H., McLellan, L. F., Wuthrich, V. M., & Rapee, R. M. (2024). A Systematic Review and Meta-Analysis of Impairment and Quality of Life in Children and Adolescents with Anxiety Disorders. *Clinical Child and Family Psychology Review*, 27(2), 342–356. <https://doi.org/10.1007/s10567-024-00484-5>
- Domschke, K., Seuling, P. D., Schiele, M. A., Bandelow, B., Batelaan, N. M., Bokma, W. A., Branchi, I., Broich, K., Burkauskas, J., Davies, S. J. C., Dell’Osso, B., Fagan, H., Fineberg, N. A., Furukawa, T. A., Hofmann, S. G., Hood, S., Huneke, N. T. M., Latas, M., Lidbetter, N., ... Baldwin, D. S. (2024). The definition of treatment resistance in anxiety disorders: a Delphi method-based consensus guideline. *World Psychiatry*, 23(1), 113–123. <https://doi.org/10.1002/wps.21177>
- Fernández-Martínez, I., & Muris, P. (2026). The Youth Anxiety Measure for DSM-5 (YAM-5): An Updated Systematic Review of its Psychometric Properties. *Child Psychiatry & Human Development*, 57(2), 593–611. <https://doi.org/10.1007/s10578-024-01712-3>
- Greenberger, D., & Padesky, C. A. (2016). *Mind over mood second edition change how you feel by changing the way you think*. The Guildford Press.
- Hale, W. W., Crocetti, E., Raaijmakers, Q. A. W., & Meeus, W. H. 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*, 52(1), 80–90. <https://doi.org/10.1111/j.1469-7610.2010.02285.x>
- Hickman, C., Marks, E., Pihkala, P., Clayton, S., Lewandowski, R. E., Mayall, E. E., Wray, B., Mellor, C., & van Susteren, L. (2021). Climate anxiety in children and young people and their beliefs about government responses to climate change: a global survey. *The Lancet Planetary Health*, 5(12), e863–e873. [https://doi.org/10.1016/S2542-5196\(21\)00278-3](https://doi.org/10.1016/S2542-5196(21)00278-3)
- Koch, L., Russo Riva, M. P., & Steinert, J. I. (2026). Technology-Facilitated Gender-Based Violence Against Politically Active Women: A Systematic Review of Psychological and Political Consequences and Women’s Coping Behaviors. *Trauma, Violence, & Abuse*, 27(4), 1231–1250. <https://doi.org/10.1177/15248380251343185>
- Lailatul Muarofah Hanim, & Sa’adatul Ahlas. (2020). Orientasi Masa Depan dan Kecemasan Menghadapi Dunia Kerja pada Mahasiswa. *Jurnal Penelitian Psikologi*, 11(1), 41–48. <https://doi.org/10.29080/jpp.v11i1.362>
- Li, X., Shek, D. T. L., & Zhang, X. (2025). The screen for child anxiety related emotional disorders scale: A longitudinal validation study based on Chinese children and adolescents. *Journal of Anxiety Disorders*, 115, 103072. <https://doi.org/10.1016/j.janxdis.2025.103072>
- Lian, J., Zuccolo, P. F., Ebrahimi, O. V., Fatori, D., Adlakha, A., De La Hoz, J. F., Lee, Y. H., Carneiro, A., Benseñor, I. M., Lotufo, P. A., Goulart, A. C., Tubbs, J. D., Watts, D., Zhou, Y., Dall’Aglia, L., Cudic, M., Kuenzi, M., Kessler, R. C., Patel, V., ... Bauermeister, S. (2026). Harmonising Depression and Anxiety Measures Across International Cohorts: A Framework Validated Using Measurement Invariance. *International Journal of Methods in Psychiatric Research*, 35(3). <https://doi.org/10.1002/mpr.70102>
- Madsen, E. E., Hansen, T., Thomsen, S. D., Panduro, J., Ermidis, G., Krstrup, P., Randers, M. B., Larsen, C. H., Elbe, A., & Wikman, J. (2022). Can psychological characteristics, football experience, and player status predict state anxiety before important matches in Danish elite-level female football players? *Scandinavian*

- Journal of Medicine & Science in Sports*, 32(S1), 150–160.
<https://doi.org/10.1111/sms.13881>
- Maier, W., Buller, R., Philipp, M., & Heuser, I. (1988). The Hamilton Anxiety Scale: reliability, validity and sensitivity to change in anxiety and depressive disorders. *Journal of Affective Disorders*, 14(1), 61–68.
[https://doi.org/10.1016/0165-0327\(88\)90072-9](https://doi.org/10.1016/0165-0327(88)90072-9)
- Muris, P., Starmans, B., de Jonge, S., Meesters, C., & Roelofs, J. (2026). Three ‘driving forces’ behind the silence: Social anxiety, autism spectrum symptoms, and language difficulties as correlates of selective mutism in young children. *Journal of Child and Family Studies*, 35(5), 1165–1177. <https://doi.org/10.1007/s10826-026-03282-5>
- Nareswari, S., & Pratiti, B. (2022). *Uji validitas dan reliabilitas instrumen kecemasan anak (SCARED) pada siswa sekolah dasar kedungsari 5 Magelang*. Universitas Gadjah Mada.
- Prasetyo, A. E., Osmond, A. B., & Rumani. (2018). Aplikasi deteksi dini gangguan kecemasan pada anak-anak berbasis android. *E-Proceeding of Engineering*, 5(3), 6058–6065.
- 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>
- Santrock, J. (2012). *Life span development: Perkembangan Masa Hidup Jilid I*. Erlangga.
- Streiner, D. L. (2003). Starting at the Beginning: An Introduction to Coefficient Alpha and Internal Consistency. *Journal of Personality Assessment*, 80(1), 99–103. https://doi.org/10.1207/S15327752JPA8001_18
- Syafii, H., & Azhari, H. (2026). Spiritual Intelligence and Metacognitive Development in Islamic Education Philosophy. *Hierophany: Journal of Islamic Religious Education*, 1(1), 61–79.
<https://doi.org/10.64850/hierophany.v1i1.219>
- Syafii, H., Azhari, H., & Alaldaya, R. (2026). Comparative Study of Conventional and Montessori Learning Methods on the Cognitive Development of Preschool Children. *Journal of Early Childhood Education Perspectives*, 2(1), 53–64. <https://doi.org/10.64850/jecep.v2i1.173>
- Syafii, H., Rahmatullah, A. S., Husain Azhari, & Alaldaya, R. (2025). Research Collaboration Patterns and Knowledge Structure in Asian Islamic Educational Psychology A Bibliometric Assessment. *DIMAR: Jurnal Pendidikan Islam*, 7(1), 119–135.
<https://doi.org/10.58577/dimar.v7i1.526>
- Syafii, M. H., & Azhari, H. (2024). Manifestation of Patience as a Coping Mechanism in Islamic Psychology: A Comparative Analysis of Sociocultural Contexts of Indonesian and Egyptian Students. *Psikoislamika : Jurnal Psikologi Dan Psikologi Islam*, 21(2), 252–290.
<https://doi.org/10.18860/psikoislamika.v21i2.29006>
- Syafii, M. H., & Azhari, H. (2025a). Interaction Between Spiritual Development and Psychological Growth: Implications for Islamic Educational Psychology in Islamic Students. *Journal of Islamic Education and Ethics*, 3(1), 29–48. <https://doi.org/10.18196/jjee.v3i1.69>
- Syafii, M. H., & Azhari, H. (2025b). Interaction Between Spiritual Development and Psychological Growth: Implications for Islamic Educational Psychology in Islamic Students. *Journal of Islamic Education and Ethics*, 3(1), 29–48. <https://doi.org/10.18196/jjee.v3i1.69>
- Syafi'i, M. H., & Mulya, A. (2024). Literature Study on the Impact of Congregational Morning Prayer on Academic Anxiety: A View on Psychospiritual and Psychoneuroimmunology in Students. *Journal of Islamic Communication and Counseling*, 3(1), 72–90.
<https://doi.org/10.18196/jicc.v3i1.72>
- Syafii, M. H., Purnomo, H., & Alberto Valero Matas, J. (2024). The Relationship Between Nomophobia and Boredom Intolerance in the Use of Social Media among Generation Z Muslim Students. *International Journal of Islamic Educational Psychology*, 5(2), 309–321.
<https://doi.org/10.18196/ijiep.v5i2.23563>
- Syafii, M. H., Purnomo, H., Ramadhan, C. S., & Azhari, H. (2024). Predictive Factors of Academic Procrastination: A Cross-Cultural Comparison between Indonesian and Egyptian Students. *Psikis : Jurnal Psikologi Islami*, 10(2), 319–329. <https://doi.org/10.19109/psikis.v10i2.24641>
- 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
- Wilmer, M. T., Anderson, K., & Reynolds, M. (2021). Correlates of Quality of Life in Anxiety Disorders: Review of Recent Research. *Current Psychiatry Reports*, 23(11), 77.
<https://doi.org/10.1007/s11920-021-01290-4>