



Research Paper

Agreement Between the Pediatric Symptom Checklist-17 (PSC-17) and Clinical Psychological Evaluation in Child Sexual Abuse Victims: A Clinical Forensic Study

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Citation Ruslan, Masadah R, Afandi IN, Zainuddin AA, Muthaher AA, Ahmad D. Agreement Between the Pediatric Symptom Checklist-17 (PSC-17) and Clinical Psychological Evaluation in Child Sexual Abuse Victims: A Clinical Forensic Study. *International Journal of Medical Toxicology and Forensic Medicine*. 2026; 16:E51966.



<https://doi.org/10.22037/ijmtfm.v16.51966>

Article info:

Received: 28 Mar, 2026

Accepted: 25 Apr, 2026

Published: 29 Apr, 2026

Keywords:

Pediatric Symptom Checklist-17, Psychosocial screening, Child sexual abuse, Child mental health, Cohen's kappa

ABSTRACT

Background: Forensic examination of child victims of sexual abuse mainly prioritizes the identification and documentation of physical findings for legal purposes. As a result, psychosocial problems may remain underrecognized during the initial assessment. A brief and practical screening instrument is therefore needed to support early detection in clinical forensic services. To assess the agreement between Pediatric Symptom Checklist-17 (PSC-17) screening results and clinical psychological evaluation findings in child victims of sexual abuse.

Methods: This analytical observational study used a cross-sectional design and was conducted from April to September 2025 at a forensic referral hospital. A total of 101 child victims of sexual abuse aged 1–17 years underwent PSC-17 screening. Clinical psychological evaluation was subsequently completed for 51 respondents, depending on the referral pathway and service availability. Agreement between PSC-17 classification and clinical psychological evaluation was assessed using a 4 × 4 contingency matrix and Cohen's kappa coefficient. The 95% confidence interval was estimated using bootstrap analysis with 1,000 replications.

Results: Of the 101 respondents, 39 children (38.6%) were classified as having severe psychosocial problems based on the PSC-17 classification applied in this study. Among the 51 respondents who underwent clinical psychosocial evaluation, 26 children (51.0%) were classified as having severe psychosocial problems. Classification accuracy was 86.27%, with a Cohen's kappa of 0.778 (95% CI [0.606, 0.908], $p < 0.001$), indicating substantial agreement between PSC-17 screening and clinical psychological evaluation.

Conclusion: PSC-17 showed good agreement with clinical psychological evaluation in identifying psychosocial problems among child victims of sexual abuse. These findings support its potential use as an initial screening tool to facilitate early detection and psychosocial triage in clinical forensic settings.

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Introduction

Child sexual abuse is a major public health problem with far-reaching consequences for mental health, social functioning, and long-term development. Globally, the burden remains substantial. The World Health Organization estimated that approximately one in five girls and one in thirteen boys experience sexual abuse before the age of 18 [1]. A growing body of evidence has shown that such experiences are associated with an increased risk of depression, anxiety disorders, post-traumatic stress disorder, and a range of behavioral difficulties that may persist into adulthood [2, 3]. Trauma occurring during critical stages of development may also disrupt emotional regulation, neuropsychological maturation, and psychosocial adaptation, thereby increasing vulnerability to later psychological and functional impairment [4, 5]. Among adolescents, a history of sexual abuse has likewise been linked to a more complex psychiatric burden, further underscoring the importance of early recognition of psychological problems in this population [6].

In clinical forensic services, the assessment of child victims of sexual abuse has traditionally focused on identifying and documenting physical findings for medicolegal purposes. Although this remains essential, psychological consequences are not always integrated optimally into the initial examination. A comprehensive trauma-informed approach requires attention not only to physical injury, but also to the psychological impact of abuse, as this may shape recovery trajectories and subsequent clinical needs [7]. In practice, however, in-depth psychological evaluation in forensic settings is often constrained by heavy caseloads, limited consultation time, and uneven access to mental health professionals [8]. These challenges create a clear need for a brief, practical, and sufficiently robust screening instrument that can assist clinicians in identifying children who require further assessment at an early stage of care.

One instrument that may address this need is the Pediatric Symptom Checklist-17 (PSC-17), a brief version of the Pediatric Symptom Checklist that evaluates internalizing symptoms, externalizing symptoms, and attention problems through parent or caregiver report [9]. Previous studies have shown that the PSC-17 has acceptable reliability and validity for detecting emotional and behavioral problems in children across a range of clinical settings, including primary care and child mental health services [10, 11]. Nevertheless, caregiver-reported screening remains subject to important limitations, as responses may be

influenced by subjective interpretation and by the caregiver's ability to recognize symptoms that are not always directly observable [12]. In addition, evidence regarding the extent to which PSC-17 screening results correspond with clinical psychological evaluation in child victims of sexual abuse within clinical forensic settings, particularly in developing country contexts, remains limited [13]. Against this background, the present study aimed to examine the level of agreement between PSC-17 screening results and clinical psychological evaluation findings in child victims of sexual abuse undergoing assessment in clinical forensic services in Makassar, South Sulawesi, Indonesia.

Materials and Methods

This analytical observational study used a cross-sectional design. It was conducted from April to September 2025 at a forensic referral hospital managing child sexual abuse cases. The study population consisted of children aged 1–17 years with confirmed sexual abuse who underwent forensic medical examination during the study period. Based on the study eligibility criteria, 101 respondents were included in the analysis. All respondents underwent PSC-17 screening through structured completion by parents or guardians. Clinical psychological evaluation was subsequently performed in 51 respondents according to the referral pathway and the availability of professional services. Because neither assessment was available for all respondents, agreement analysis was restricted to cases with complete data on the PSC-17 and the clinical psychological evaluation.

Descriptive statistics were used to summarize respondent characteristics and the distribution of psychosocial problem severity. Agreement between PSC-17 classification and clinical psychological evaluation was assessed using a 4×4 contingency matrix and Cohen's kappa coefficient. To improve the stability of the estimate in a relatively small sample, a bootstrap procedure with 1,000 replications was used to generate a 95% confidence interval for the kappa coefficient. Classification accuracy was calculated as the proportion of concordant classifications among respondents with complete data. Statistical analysis was conducted using IBM SPSS Statistics, with significance set at $p < 0.05$.

Ethical approval was granted by the Research Ethics Committee of Universitas Hasanuddin (No. 465/UN.4.6.4.5.31/PP36/2025). All procedures complied with ethical standards for research involving child participants.

Results

A total of 101 respondents were analyzed. Most were female (96, 95.0%) and aged 10-17 years (80, 79%). The most frequent type of sexual abuse was rape, 62 (61.4%), followed by molestation, 24 (23.8%), sexual harassment, 12 (11.9%), and sodomy, 3 (3.0%). Based on PSC-17 screening, 39 respondents (38.6%) were classified as having severe psychosocial problems, 36 (35.6%) as having moderate psychosocial problems, 23 (22.8%) as having mild psychosocial problems, and 3 (3%) as having no psychosocial problems (Table 1).

A clinical psychological evaluation was completed for 51 respondents. Within this subgroup, 26 children (51.0%) were classified as having severe psychosocial problems, and 12 (23.5%) had moderate psychosocial problems. Because clinical psychological evaluation was not available for all respondents, these findings reflect only the subgroup with complete clinical data (Table 2).

Agreement analysis was performed in the 51 respondents who completed both assessments. Of these, 45 received the same classification from PSC-17 and clinical psychological evaluation, resulting in a classification accuracy of 86.27%. Most observations were concentrated along the diagonal cell of the contingency matrix, indicating high agreement. Perfect agreement was observed in the categories of no psychosocial problem and mild psychosocial problems, while disagreement was limited mainly to adjacent moderate and severe categories.

Table 2. Clinical Psychological Evaluation Results (N=51).

Diagnosis	N (%)
No psychosocial disturbance	3 (5.9%)
Mild psychosocial disturbance	10 (19.6%)
Moderate psychosocial disturbance	12 (23.5%)
Severe psychosocial disturbance	26 (51%)

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Cohen's kappa was 0.778 ($p < 0.001$), indicating substantial agreement between PSC-17 screening and clinical psychological evaluation. Bootstrap analysis with 1,000 replications yielded a 95% confidence interval of 0.606 to 0.908, suggesting that the estimate was relatively stable within the analyzed sample (Table 3).

Discussion

This study found good agreement between PSC-17 screening and clinical psychosocial evaluation in child victims of sexual abuse examined in a clinical forensic setting. Using the operational classification applied in this study, the analysis produced a Cohen's kappa of 0.778 and a classification accuracy of 86.27%, indicating substantial agreement. These findings suggest that PSC-17 may be useful as an initial screening tool for identifying psychosocial problems in child victims of sexual abuse, particularly when rapid assessment is needed before a more comprehensive evaluation becomes available. This finding is clinically relevant because PSC-17 is brief, easy to administer, and based on caregiver report across internalizing, externalizing, and attention domains [9].

Table 1. Sociodemographic Characteristics of Respondents, Type of sexual Violence, and PSC-17 Screening Results (N=101).

Variable	N (%)
Sex	Male
	5 (5%)
	Female
	96 (95%)
Age group	5-9 years
	21 (20.8%)
	10-17 years
	80 (79.2%)
Education level	Not yet attending/Not enrolled in school
	10 (9.9%)
	Elementary school
	19 (18.8%)
	Junior high school
	34 (33.7%)
	Senior high school
Type of Sexual Violence	38 (37.6%)
	Sexual harassment
	12 (11.9%)
	Sexual molestation
	24 (23.8%)
	Rape
	62 (61.4%)
PSC-17 Screening	Sodomy
	3 (3%)
	No psychosocial disturbance
	3 (3%)
	Mild psychosocial disturbance
	23 (22.8%)
	Moderate psychosocial disturbance
	36 (35.6%)
	Severe psychosocial disturbance
	39 (38.6%)

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Table 3. Agreement Between PSC-17 Screening Results and Clinical Psychological Evaluation (N=51).

PSC-17 Classification	No psychosocial disturbance	Mild	Moderate	Severe	Total
No psychosocial disturbance	3	0	0	0	3
Mild psychosocial disturbance	0	7	0	0	7
Moderate psychosocial disturbance	0	3	8	0	11
Severe psychosocial disturbance	0	0	4	26	30
Total	3	10	12	26	51

Cohen's kappa = 0.778 (95% CI bootstrap: 0.606-0.908; $p < 0.001$), Classification accuracy = 86.27%

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In clinical forensic services, initial examinations often prioritize medicolegal documentation and operate under time and resource constraints. Under these conditions, a short screening instrument may help identify children who require further assessment [8, 10, 14-16]. PSC-17 is therefore better positioned as an early triage tool than as a substitute for full assessment.

The results are also consistent with evidence showing that child sexual abuse is associated with increased risk of depression, anxiety, post-traumatic stress symptoms, and behavioral disturbance [2, 6, 17]. Trauma during early development may also affect emotional regulation, psychological functioning, and long-term mental health [4, 5, 18]. The large proportion of respondents classified in the moderate to severe range further suggests that psychosocial burden in this population is clinically meaningful and should not be overlooked in forensic services [19].

From a measurement perspective, these results align with previous reports showing that PSC-17 has a stable structure and acceptable psychometric performance across pediatric populations [9, 11, 15, 20]. Reviews have also emphasized the value of brief screening tools for identifying child mental health problems in settings with limited specialist resources [19, 21, 22]. The present study extends that evidence to a more specific setting, namely, clinical forensic services for child victims of sexual abuse.

These results should still be interpreted cautiously. The four-category PSC-17 grouping used in this study was an operational approach for analysis rather than a universally validated severity cutoff. In general, PSC-17 is intended to detect psychosocial risk rather than establish precise clinical severity. The observed agreement therefore supports its value for screening and triage, not for replacing clinical psychological evaluation. The pattern of disagreement supports this interpretation. Misclassification occurred mainly between widely separated groups. This suggests that PSC-17 is better suited to identifying broad gradients of psychosocial difficulty than to making fine

distinctions in severity. This is understandable because PSC-17 depends on caregiver report, whereas clinical psychological evaluation is broader, deeper, and more contextualized [9, 22].

Interpretation should also consider the services pathway. Although all respondents completed PSC-17 screening, clinical psychological evaluation was available only for a subset of children based on referral procedures and service availability. Children with greater apparent clinical needs may have been more likely to receive further evaluation. This introduces the possibility of partial verification bias and referral bias. Accordingly, the agreement reported here should be understood within the subgroup with complete data rather than as a direct estimate for all child victims of sexual abuse seen in forensic services. Despite these limitations, the study has practical implications. In clinical forensic settings, early examination often centers on medical documentation for legal purposes, while psychosocial assessment may receive less attention [23, 24]. More recent forensic perspectives also emphasize the importance of psychological impact and disclosure processes in child sexual abuse evaluation [25]. Within this context, PSC-17 may support a more structured initial psychosocial triage process and help identify children who should be prioritized for further evaluation or intervention.

Overall, this study adds to the still-limited evidence on psychosocial screening in child sexual abuse cases within clinical forensic services. PSC-17 appears to have practical value as an initial screening instrument in this setting, but its use should remain proportionate, and clinically stronger validation of severity classification is needed.

This study has several limitations. Although all respondents underwent PSC-17 screening, clinical psychological evaluation was completed for only a subset of children due to referral procedures, service availability, and operational and social barriers, such as distance, cost, limited service hours, and family refusal. As a result, agreement analysis was restricted to

respondents with complete data, which may have introduced partial verification bias and referral bias and reduced subgroup representativeness. In addition, the study was conducted in a single clinical forensic service, so the finding should be generalized cautiously. The four-category PSC-17 grouping used in this study should also be understood as an operational classification for analysis rather than a universally validated severity cutoff.

Conclusion

PSC-17 showed good agreement with clinical psychological evaluation in identifying psychological problems among child victims of sexual abuse in a clinical forensic setting. These findings support its potential use as an initial screening and triage tool, particularly in services facing time and resource constraints. However, the results should be interpreted with caution because clinical psychological evaluation was available for only a subset of respondents, and the study was conducted at a single center. Further studies with broader samples and more standardized comparison procedures are needed to strengthen the basis for its use in clinical forensic practice.

Acknowledgment

The authors would like to express their appreciation to Hasanuddin University for its academic support, and to the forensic referral hospital in Makassar for providing facilities and technical support that contributed to the completion of this study.

Funding

This study received no external financial support from governmental, commercial, or non-profit organizations. All research activities, including study design, data collection, analysis, and manuscript preparation, were conducted independently by the authors.

Conflicts of Interest

The authors declare that this study was conducted in the absence of any financial, personal, or institutional interests that could potentially influence the objectivity of the research process. All stages of the study, including study design, data collection, statistical analysis, and interpretation of findings, were conducted independently and without external interference. Furthermore, the authors confirm that no competing relationships or affiliations exist that could be perceived as influencing the content or conclusions presented in this manuscript.

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