

DEVELOPMENT AND VALIDATION OF THE CLASSROOM BEHAVIORAL AND EMOTIONAL PROBLEMS ASSESSMENT SCALE

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Abstract

The research seeks to develop and verify the Classroom Behavioral and Emotional Problems Assessment Scale (CB-EPAS), a culturally relevant tool intended to evaluate behavioral and emotional challenges in children, specifically within the framework of Pakistani culture. The scale was created utilizing a mixed-methods approach, which included two focus groups with primary school educators, succeeded by content validation with four instructors. The initial questions were developed according to themes identified in the Developmental Psychopathology Framework (Cicchetti & Cohen, 2006), including emotional dysregulation, impulsivity, hyperactivity, defiance, low self-esteem, and associated symptoms. A preliminary set of 78 questions was refined by expert evaluation, yielding a final scale of 73 items, which underwent pilot testing ($N = 100$) and exploratory factor analysis. Factor analysis identified four principal factors: Impulsivity and Hyperactivity, Emotional Dysregulation, Defiance and Hostility, and Low Self-Esteem and Confidence Issues, culminating in a 46-item scale. The scale exhibited exceptional reliability (Cronbach's $\alpha = 0.98$) and test-retest stability, validating its efficacy as a tool for detecting children's behavioral and emotional challenges. Moreover, evaluations of convergent and divergent validity demonstrated the scale's precision in differentiating between emotional and behavioral issues. This study underscores the scale's efficacy for educators and psychologists in recognizing and managing emotional and behavioral issues in children, especially in non-Western, culturally diverse contexts. Future study should investigate the scale's applicability across many groups and contexts, thereby establishing its cross-cultural reliability and efficacy in intervention implementation.

Keywords: Behavioral problems, emotional problems, scale development, Pakistani culture, factor analysis, reliability, validity, children's mental health.

INTRODUCTION

The school environment significantly affects a child's development, markedly affecting their academic and behavioral growth. This study examines the intricate relationship between two significant characteristics in school-age children: behavioral and emotional problems and academic challenges. The research aims to offer valuable insights to teachers, parents, and psychologists for

developing targeted interventions to enhance children's overall educational experience by identifying potential risk factors and protective variables. Research demonstrates a reciprocal association between children's behavioral problems and academic challenges. Behavioral difficulties can hinder a child's academic progress and harm their social skills and academic achievement (Garcia et al., 2020).

These problems become more challenging by Pakistani culture, its quirks, and society's norms. Apprehending how cultural elements are interconnected with emotional and behavioral problems is significant to constructing appropriate solutions related to the situation. The foremost elements that influence the behavioral and The emotional circumstances of primary schools in Pakistan encompasses parental involvement, the relationship between teachers and students, and cultural or societal standards (Mansoori, 2023).

The study focuses on exploring the behavioral and emotional issues in students of elementary schools in Pakistan in a more comprehensive manner. The aim is to dig out the patterns and determine characteristics of behavioral and emotional issues by exploring the individual, contextual, and cultural contexts. The repercussions will aid the child's parents, teachers, and legislators in creating culturally defined programs and practices that will aid the child's Emotional well-Being and behavioral development within the specific contexts of elementary school environments in Pakistan (Zaidi, 2021).

Several investigations performed by scholars have focused on the significance of culture-related factors and elements that aid in shaping children's emotional and behavioral well-being. Furthermore, studies based on Pakistani education-based policies and practices highlight the impact they have on children's mental health and also how they generally adjust in schools. Nevertheless, a comprehensive exploration of the interconnection between behavioral and emotional issues in children and related distinctive characteristics of Pakistan's primary school environments is still not explored enough (Syed et al., 2007).

Children aged 6 and 12 studying in a primary school are in a critical stage of development. This period is phased by featuring the emotional, social, and cognitive milestones. In this period, children gain fundamental academic abilities in their learning during the initial stages of their formal education, students concurrently develop essential social and emotional competencies that will establish a basis for the future psychological well-being. It is crucial to understand the developmental stage of children during their primary school years, and behavioral and emotional issues are interlinked to serve as a prerequisite for designing interventions and support systems (Saleem & Mehmood, 2011).

A child goes through considerable growth in social, emotional, and cognitive development during the early school years, known as elementary school. The developmental milestones in the social, emotional, and cognitive domains may be a reason for emerging and presenting complaints regarding behavioral and emotional difficulties. It is dire and essential to consider how these difficulties interconnect with the distinct developmental characteristics of primary school students to tailor solutions and interventions specific to concerns and situations (Affan & Khalid, 2015).

Various research (Rafiq et al., 2022) administered worldwide revealed how these emotional and behavioral difficulties prevail. However, the presentation of these problems varies in different cultures, societies, and communities and has situational differences, underscoring the need to work on local and indigenous research. Students in their primary school settings in Pakistan may deal

with several hurdles that arise due to cultural and societal norms, education ordinal, and socioeconomic differences.

Many researches show the adverse outcomes that bring about problems in behaviors and emotions due to long-term health issues that disturb an individual's psychological well-being, social interactions, and academic performance. To underscore these problems experienced by children suffering from behavioral and emotional issues, it is vital to understand the intricacies and interwoven nature of these problems (Rafiq et al., 2022).

Various research investigates and shows the correlation and prevailing problems in emotions and behaviors in school-going children, underscoring the intricate nature of such problems and challenges. According to studies, factors like socioeconomic background, parenting styles, unfavourable or traumatic childhood experiences, and peer connections substantially impact a child's functions and development in emotional and behavioral domains in school and classroom environments (Poulou, 2014).

A longitudinal study examines how early emotional regulation and problematic behavior evolve. Assessments were carried out annually on 500 children in the sample, who were monitored from age two to eight. The findings showed that diverse problematic behavior patterns appeared as early as age two and that differences significantly influenced these patterns in emotional control. The study emphasizes the importance of focusing early interventions on specific emotional control issues to reduce children's likelihood of persistently troublesome behaviors (Smith et al., 2019).

Another study by Garcia et al. (2020) Investigated the connection between preschool-aged children's social competency and their ability to control their emotions. The researchers conducted a prospective analysis to monitor the evolution of social competence and emotion control over time. The results showed that pre-schoolers' improved social skills and efficient emotion management were positively correlated. Youngsters with higher levels of emotional regulation also showed stronger peer relationships, more positive social behaviors, and greater social flexibility in general. The study highlights the possible influence on children's social development and interpersonal connections, underscoring the critical role that early emotion management abilities have in determining social outcomes throughout the crucial preschool years.

Developing a measure or assessment tool that is culture-appropriate and contextual is very important. It is vital to ensure fairness, validity, reliability, and relevance for students from different backgrounds. By integrating the considerations related to context and culture for developing an assessment tool, the researchers can develop unbiased and non-discriminatory measures that accurately represent the student's skills and experience (Brian, 2020).

Attachment theory (Bowlby, 1950; Ainsworth, 1978) emphasizes the significance of early bonds, especially with caregivers, in shaping a child's emotional and social development. Similarly, self-determination theory (Deci & Ryan, 1980) underscores the importance of autonomy, relatedness, and competence in fostering intrinsic motivation and well-being. These frameworks establish a foundation for understanding how initial interactions and unmet psychological requirements result in behavioral and emotional challenges.

Methodology

Research design

The current study is based on a mixed-method research design, that provides a more flexible and holistic approach to developing assessment scales, help understand the construct better, give

contextual comprehension, refine the tool, and determine new themes considering diverse perspectives.

Participants and sampling strategy

Through convenient sampling, a sample of 400 teachers (180 men & 220 women; mean age = 35.1, S.D = 4.80) of primary school children aged 6-12 years showing behavioral and emotional problems in the classroom was selected from Lahore, Pakistan. The sample was recruited through convenient sampling from different public and private schools where the teachers identified different behavioral and emotional issues in children. The participants included in the study as sample were those teachers who were: (a) Dealing with children having attention issues, hyperactivity, aggression, withdrawal, anxiety, oppositional behavior, disruptive behavior, academic challenges, peer relationship issues, low self-esteem, and depressive symptoms. (b) From a range of socioeconomic backgrounds, to make sure that the screening tool is applicable among different backgrounds. (c) Both men and women were included to ensure gender inclusion and comprehend possible differences in the perception of behavioral and emotional issues in children. (d) Teachers with at least 1 year of experience were included in the study to have better and reliable results. (e) Teachers from both private and government schools were included as sample to ensure that the scale is comprehensive and culturally appropriate. (f) To create a tool that is sensitive to cultural quirks, it was ensured that teachers from the local community from a variety of cultural backgrounds participate. Those participants were excluded from the study who had: (a) Issues involving severe mental health disorders requiring immediate assistance. (b) Teachers with language problems that make it difficult to understand the screening questions or instructions were not included. (c) Observed issues of children with medical issues that could have a substantial impact on their psychological health and could impede accurate screening were not included.

Assessment Tools

Informed consent form

A written form was attached to the scale including the purpose, objective and rationale of the study. It was also attached in order to know the willingness of the participant to be the part of the research study.

Demographic information sheet

The demographic sheet included the age, gender, religion, residential area, family system, education, employment type (government/private), number of siblings, birth order of the participant and years of experience.

Emotional and behavioral problems scale (EBPS)

Emotional and Behavioral Problems Scale (EBPS) is an indigenous assessment tool to identify problematic behaviors and emotions in adolescents. It is an evaluating tool conducted for crafting further interventions and treatment plans. Originally the scale was developed by Kausar et. Al (2022) based on the framework given by Achenbach and Edelbrock (1991) on the internalizing and externalizing problems. The EBPS scale consists of 32 items with the Cronbach's alpha value of 0.92 and is based on 5-point Likert scale. example items from the Emotional and Behavioral Problems scale are "I have trouble in paying attention" and "Nothing makes me happy".

Perceived social support scale

The Perceived Social Support Scale was initially developed by Gregory D. Zimet (1988) and it was translated in Urdu by Tahira Jabeen in 2015. the scale is based on the perception of a person on the social support he gets from his friends and family. The scale consists of 12 items in total. It is based 7 points Likert scale and the Cronbach's alpha coefficients range from 0.85 to 0.94. example items from the Emotional and Behavioral Problems scale are “There is someone special who is always available in time of difficulty” and “My family tries to help me”.

Procedure

The Classroom Behavioral and Emotional Problems Assessment Scale (CBEPAS) was developed in the following stages:

Stage 1: Domain identification and item generation through focus group

Participants. A focus group session was conducted with seven teachers (3 Men & 4 Women) of primary school children aged 6-12 years having behavioral and emotional issues.

Procedure. A focus group interview was held with seven educators (three males and four females) from a private and a government institution, all of whom had experience with primary school students aged 6 to 12 years displaying behavioral and emotional challenges. The session aimed to collect insights into the observable behavioral and emotional difficulties encountered by children in this age demographic. The session commenced with an overview of the study's aims and a guarantee of confidentiality to promote candid discussion. Educators were requested to convey their insights and experiences concerning prevalent behavioral and emotional difficulties in children, including the manifestations of these disorders within classroom environments.

A semi-structured guide directed the discussion, focusing on key areas such as attention deficits, hyperactivity, impulsivity, aggression, anxiety, withdrawal, oppositional behavior, disruptive conduct, academic challenges, peer relationship issues, low self-esteem, and depressive symptoms. Educators engaged in a collaborative discussion, sharing examples and elaborating on the behavioral patterns they had observed. The moderator ensured that all participants had equal opportunity to contribute and provided prompts to explore topics comprehensively.

The session was audio-recorded with the participants' consent to guarantee precision and was then transcribed for thematic analysis. The insights obtained from this focus group served as the foundation for item generation in the creation of the teacher rating scale, ensuring that the scale accurately represented culturally and contextually pertinent behavioral and emotional concerns identified in Pakistani classrooms.

Stage 2: Content Expert Validation

Participants. Four experts and professionals in psychology examined the items for their clarity and content.

Procedure. The content validation method for the 78-item teacher rating scale was performed to assess the clarity, relevance, and suitability of the items. Four experienced psychologists, possessing substantial skill in evaluating child behavior and emotions, were requested to assess the measure. The experts assessed each component for clarity, linguistic precision, cultural relevance, and compliance with the designated characteristics, including hyperactivity, impulsivity, emotional dysregulation, and defiance. The scale was substantially revised according to expert opinion. Twenty-one items were amended to improve clarity and ensure better alignment with the structures. Eight things were classified as superfluous or irrelevant and consequently excluded. Furthermore, three additional items were implemented to rectify deficiencies noted by the reviewers. These

alterations produced a polished scale consisting of 73 components. The modified scale was thereafter evaluated collectively to guarantee uniformity and clarity. The content validation method confirmed that the scale was theoretically sound and practically relevant, establishing a dependable basis for later psychometric testing. The five options that followed each item were as follows: Very strong = 5, Strong = 4, Moderate = 3, Weak = 2 and Very weak = 1. After the content validation from the scale of 78 items 21 of the total items have been rephrased by the experts including item no. 16, 23, 24, 26, 31, 33, 34, 35, 38, 47, 49, 52, 55, 58, 61, 63, 66, 69, 70, 74 and 76. On the other hand in total 8 of the items were excluded including item no. 8, 9 and 17 as they were below average. Items no. 39, 40, 43, 65 and 71 were excluded due to similarity e.g. item no. 39 was omitted due to similarity with item no. 38, item no. 40 and 43 were omitted due to similarity with item no. 35. Item no. 65 was omitted due to similarity with item no. 66 and item no. 71 was excluded because it was similar to item no. 70. From the scale 3 of the items were replaced/changed by experts including item no. 47, 56 and 57. These were replaced into new items due to lack of appropriateness and relevance. The scale had in total of 78 items before the expert validation which reduced to 73 items after the validation and expert suggestions.

Statistical Analysis. Mean ratings were computed for determining the central tendency and variance of evaluations by experts on each item through SPSS version 24.

Stage 3: Pilot testing

Participants. The scale was administered on 100 (56 women & 44 men; mean age = 34.4, S.D = 4.5) teachers of primary school children aged 6-12 years showing behavioral and emotional problems in a classroom setting. The sample was recruited through convenient sampling technique from private and government schools in Lahore, Pakistan.

Procedure. A small and representative sample of 100 participants was selected for the initial administration of the test. This helped in identifying potential problems, and feedback was obtained before the finalization of the scale. The contentvalidated 73 items questionnaire had an informed consent form and a demographic information sheet. Permission to collect data was taken from the CEO of Deputy Education office Lahore. A convenient sampling technique was used to recruit the participants. The sample was obtained from a primary school setting to evaluate the assessment tool's reliability, comprehensibility, and cultural fit. For the improvement of the instrument, participant's feedback was also gathered.

Statistical Analysis. To measure how closely the set of items was related to a group, scale internal consistency was assessed through Cronbach's using SPSS version 24. Item number 35, 38, 42, and 44 were excluded because these items had low consistency and exclusion of these items lead to an improved Cronbach's alpha value. i.e. (.98) for the 69-item scale.

Stage 4: Exploratory Factor Analysis

Participants. For factorial analysis, the finalized scale consisting of 69 items after pilot testing was administered to 150 teachers (77 women & 73 men, mean age = 35.1, S.D = 4.8) of primary school children aged 6-12 years showing behavioral and emotional issues in the classroom was selected through convenient sampling. The teachers were recruited by contacting different public and private schools from Lahore, Pakistan.

Procedure. A set of identified factors (indicators) underpinning the latent construct was determined. It was made sure that statistics at the presumptions of factor analysis, including linearity, multidimensional normality, absence of outliers, and an adequate sample size. The the total number of variables to be obtained was chosen. This selection was based on statistically

significant processes like the Kaiser Guttman criterion, scree plot, or parallel analysis. A Factor extraction method, including Principal Component Analysis (PCA) and Principal Axis Factoring (PAF), was chosen. The rotation of factors was carried out to simplified comprehension, which includes the Varimax method for attaining a more evident factor structure. The factor loadings were examined, which indicates the strength and direction of the association among each variable and the factors. The focus was on the loadings situated above a certain threshold (i.e., 0.4). Based on the factor loadings and the theoretical understanding, interpretation was made, and the factors were given meaningful names.

Statistical Analysis. Explanatory factor analysis (EFA) was calculated to explore the underlying structure of the data through SPSS version 24.

Stage 5: Reliability and Validity Assessment

Reliability Assessment

Participants. The final scale of 46 items was administered on the sample of 150 teachers (76 women & 74 men, mean age = 34.4, S.D = 4.5) of primary school children aged 6-12 years. Further for test-retest reliability the scale was administered on the same sample of 50 teachers (25 women & 25 men, mean age = 32, S.D = 3.9) again after the gap of two weeks.

Internal Consistency. The finalized scale of 46 items was used to assess the degree of response consistency amongst scale items, Cronbach's alpha was calculated.

It evaluated the degree to which the scale's elements measured the same construct. A Cronbach's alpha value should be above 0.7 for internal solid consistency.

Test-Retest Reliability. The developed scale was administered and readministered on the same sample with the gap of two weeks and Pearson product moment coefficient correlation was calculated to determine the stability of scores over time.

Statistical Analysis: Cronbach's Alpha, inter item consistency and bi-variate correlation was conducted on the data through using SPSS version 24.

Validity Assessment

Participants. In order to conduct validity assessment, the final scale of 46 items was administered on the sample of 150 teachers (77 women & 73 men, mean age = 36.4, S.D = 5.5) of primary school children aged 6-12 years.

Convergent Validity. To evaluate the extent to which The Classroom Behavioral and Emotional Problems Assessment Scale (CB-EPAS) is theoretically related to a similar measure, i.e., convergent validity, an already recognised measure Emotional and Behavioral Problems Scale (EBPS) an indigenous assessment tool to identify problematic behaviors and emotions in adolescents developed by Kausar et.

(2022) was used.

Discriminant Validity. The Perceived Social Support Scale, initially developed by Gregory D. Zimet (1988) and translated by Tahira Jabeen (2015), was used to assess the discriminant validity of the developed scale. This determined the discriminant validity by assessing two different constructs that were theoretically unrelated.

Statistical Analysis. Pearson product-moment coefficient correlation was calculated using SPSS version 24 for convergent and discriminant validity, with a statistically significant positive correlation between theoretically related constructs. Moreover, there was no statistically significant or weak correlation between constructs that are not theoretically related.

Ethical Considerations

The participants were briefed about the primary purpose of why the research is being conducted. Their verbal and written consent was obtained before interviews are conducted and the tool is administrated. Participants was asked for their willingness to participate in the study. They were ensured of the confidentiality of their data and identities. They were reassured that no information will be disclosed to any other person. As the study is approved by the ethical review board of COMSATS University Lahore. And that they can leave and withdraw from the study at any time.

Results

Table 1

Demographic characteristics of the study variables.

Variables	Frequency	Percentage
Gender		
Female	220	55%
Male	180	45%
Education level		
Matric	72	18%
intermediate	116	29%
Graduation	88	22%
other	124	31%
Employment		
Government	176	44%
Private	224	56%
Religion		
Muslim	384	96%
Christian	12	3%
other	4	1%
Monthly income		
Less than 10,000	116	29%
20 to 25000	152	38%
25 to 50000	108	27%
50,000 to 1lac	24	6%
Birth order		
First	164	41%
Middle	88	22%
Last	128	32%
Only child	20	5%

Note. N=400

Exploratory Factor Analysis

Table 2

Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) and Bartlett's test of sphericity.

	KMO		Bartlett's Test	
		Chi square	DF	Sig.
CB-EPAS	.72	12667.54	2346	.00

Note: N=150, $p < 0.5$

The table illustrates that assessment of sampling adequacy i.e., Kaiser-Meyer Olkin (KMO) is 0.72 and the Bartlett's test also shows significant value which is greater than the recommended value of 0.5. The values suggest that the sample is adequate for factor analysis.

Table 3

Communalities for 69 items of Classroom Behavioral and Emotional Problems Assessment scale obtained through Principal Component Analysis.

Item no.	Initial	Extraction	Item no.	Initial	Extraction
Item1	1.00	.46	Item36	1.00	.51
Item2	1.00	.54	Item37	1.00	.44
Item3	1.00	.54	Item38	1.00	.48
Item4	1.00	.43	Item39	1.00	.66
Item5	1.00	.61	Item40	1.00	.56
Item6	1.00	.53	Item41	1.00	.45
Item7	1.00	.67	Item42	1.00	.53
Item8	1.00	.48	Item43	1.00	.45
Item9	1.00	.45	Item44	1.00	.54
Item10	1.00	.49	Item45	1.00	.62
Item11	1.00	.59	Item46	1.00	.44
Item12	1.00	.50	Item47	1.00	.56
Item13	1.00	.48	Item48	1.00	.39
Item14	1.00	.53	Item49	1.00	.64
Item15	1.00	.48	Item50	1.00	.52
Item16	1.00	.58	Item51	1.00	.56
Item17	1.00	.47	Item52	1.00	.64
Item18	1.00	.45	Item53	1.00	.64
Item19	1.00	.54	Item54	1.00	.68
Item20	1.00	.57	Item55	1.00	.51
Item21	1.00	.41	Item56	1.00	.62
Item22	1.00	.60	Item57	1.00	.64
Item23	1.00	.28	Item58	1.00	.58
Item24	1.00	.62	Item59	1.00	.63

Item25	1.00	.59	Item60	1.00	.49
Item26	1.00	.55	Item61	1.00	.49
Item27	1.00	.44	Item62	1.00	.59
Item28	1.00	.44	Item63	1.00	.54
Item29	1.00	.60	Item64	1.00	.73
Item30	1.00	.57	Item65	1.00	.60
Item31	1.00	.66	Item66	1.00	.56
Item32	1.00	.61	Item67	1.00	.56
Item33	1.00	.47	Item68	1.00	.60
Item34	1.00	.59	Item69	1.00	.74
Item35	1.00	.69			

Note. Communalities >0.3 and are boldface, N=150

Table shows the extracted values of the items which indicates that the communalities for most of the items is greater than 0.3 which makes it appropriate for factor analysis.

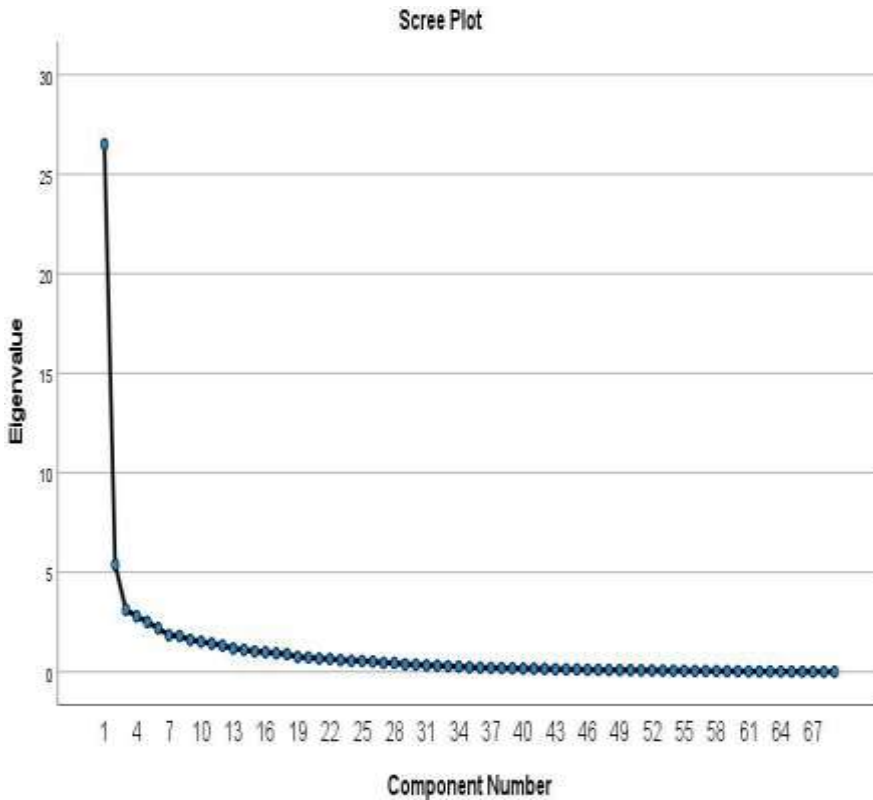


Figure 1. Scree Plot

Table 4

Rotated component matrix for items of Classroom Behavioral and Emotional Problems Assessment scale using Varimax

	1	2	3	4
item3				.63

item5				.68
item6				.65
item7				.71
item8				.66
item9				.55
item11	.69			
item13	.64			
item14				.51
item15		.54		
item16		.65		
item18		.56		
item19		.61		
item21		.51		
item22		.76		
item24		.72		
item25		.65		
item27			.59	
item28		.56		
item29		.74		
item30		.61		
item32	.59			
item34	.58			
item38	.55			
item39	.77			
item40	.71			
item41	.64			
item42	.57			
item43		.54		
item44			.62	
item45			.61	
item47			.59	
item50	.57			
item52	.58			
item53			.61	
item54			.66	
item56	.68			
item57	.68			
item59	.63			
item60	.55			
item62	.62			
item63	.55			
item64	.76			

item65			.64	
item67			.66	
item68			.61	

Note: values >0.3 are suppressed, N=150

Tables shows that after rotated component matrix of factor structure the items 1, 2, 4, 10, 12, 17, 20, 23, 26, 31, 33, 35, 36, 37, 46, 48, 49, 51, 55, 58, 61, 66, 69 in total 23 items were discarded from the CB-EPAS scale due to higher loadings on various factors. The difference between two loadings was lesser than 0.2. Therefore, the items were excluded and the new scale consists of 46 items distributed among total of 4 factors. Factor 1 consists of 18 items, factor 2 has 12 items, factor 3 has 9 items and factor 4 includes 7 items.

Reliability Analysis

Table 5

Internal consistency of Classroom Behavioral and Emotional Problems Assessment scale (CBEPAS)

Scale	Cronbach's Alpha	Total items
Classroom Behavioral and Emotional Problems Assessment scale (CBEPAS)	.96***	46

Note. N=150

The table shows a strong and high internal consistency i.e., Cronbach's Alpha (0.96) for the finalized items of the Classroom Behavioral and Emotional Problems scale.

Table 6

Test-retest reliability of Classroom Behavioral and Emotional Problems Assessment scale (CBEPAS)

Scale	R	Significance
Classroom Behavioral and Emotional Problems Assessment scale (CBEPAS)	.98***	.00

Note. correlation is significant at 0.01 (2 tailed), N=50

The tables show high positive correlation which shows the high temporal stability of the scale.

Validity Assessment

Table 7

Convergent and divergent validity of Classroom Behavioral and Emotional Problems Assessment scale (CBEPAS)

Variables	R	Significance
Emotional and Behavioral Problem Scales (EBPS)	.72**	.001
Perceived Social Support Scale (PSS)	-.37	.001

Note. Correlation is significant at the 0.01 level (2 tailed), N=100

The table shows that convergent validity scale; Emotional and Behavioral Problem Scales (EBPS) has moderately high and positive correlation with Classroom Behavioral and Emotional Problems Assessment scale ($r = .72^{**}$). Whereas divergent validity scale; Perceived

Social Support Scale (PSS) has negative and low correlation ($r=-.37$) with CB-EPAS and both of the scales are inversely correlated to each other.

Discussion

This study developed and validated a culturally appropriate teacher rating scale to identify behavioral and emotional issues in Pakistani children. Using a mixed-method approach, it ensured the scale's reliability and relevance for the local context, addressing the need for context-specific tools in educational and clinical psychology. This discussion examines the study's key outcomes in relation to current research on child behavior and emotional assessment, focusing on implications for Pakistani schools. It highlights the study's strengths and limitations, particularly cultural considerations, and suggests future research directions to enhance the scale's applicability. The project aims to provide culturally relevant tools for early identification and support of children with behavioral and emotional challenges in Pakistan.

This study's findings, which developed a culturally sensitive teacher rating scale for identifying behavioral and emotional issues in Pakistani children, align with research highlighting the importance of context-specific mental health screening tools. Previous studies, like the translation of the Child Behavior Checklist (CBCL) into Urdu, underscore the importance of culturally relevant instruments, demonstrating reliability in identifying children's behaviors in Pakistan. This confirms the validity and importance of the newly developed teacher assessment scale, which also considers the cultural and social dynamics of Pakistani schools (Ahmad et al., 2022).

The initial step involved a focus group of seven middle primary school educators to identify notable behavioral and emotional challenges observed in the classroom. Themes including attention deficits, hyperactivity, anxiety, and academic difficulties emerged, forming the basis for the scale items. The results validated previous research, highlighting the need for a comprehensive, culturally relevant assessment tool. After developing initial scale items from focus group data, content validation was performed with four professional educators to ensure that the items appropriately reflected the intended subjects. A total of 78 items were assessed for clarity, relevance, and comprehensiveness, with experts recommending improvements. As a result, some items were removed, and others were modified, leading to a final set of 73 items for further testing. In the next phase, a pilot study with 100 educators tested the 73-item scale, resulting in the exclusion of 4 items due to low consistency. The remaining 69 items achieved an excellent Cronbach's alpha of 0.98, indicating strong internal consistency. An exploratory factor analysis (EFA) conducted with 150 teachers further refined the scale, leading to the removal of 23 items with poor internal consistency, resulting in a final 46-item scale.

The Kaiser-Meyer-Olkin (KMO) test (0.72) and Bartlett's Test of Sphericity ($p < 0.01$) confirmed the data's suitability for factor analysis. Principal Component Analysis (PCA) revealed four factors: Factor 1 (18 items) related to impulsivity and hyperactivity, Factor 2 (12 items) related to emotional dysregulation (anxiety and depression), Factor 3 (9 items) linked to defiance and hostility, and Factor 4 (7 items) focused on low self-esteem. Based on these findings, the scale was revised to a final version with 46 items. A qualitative analysis revealed redundancy within the impulsivity and hyperactivity items in Factor 1, leading to their consolidation. Emotional dysregulation (e.g., anxiety and depression) was grouped in Factor 2, while defiant and aggressive behaviors were placed in Factor 3. Factor 4 focused on issues related to low self-esteem and confidence. This qualitative validation ensured that the final 46-item scale accurately and

rigorously represented the key behavioral and emotional challenges identified in both the focus groups and factor analysis.

Factors

Factor 1: Impulsivity and Hyperactivity

Children with Attention-Deficit/Hyperactivity Disorder (ADHD) often exhibit impulsive and hyperactive behaviors, struggling to regulate their actions and thoughts. Impulsive behaviors such as posing questions without contemplation, fidgeting while required to remain seated, and responding before to the completion of inquiries can lead to considerable disturbance in educational environments (Barkley, 2006).

Inattention. Inattention, or the incapacity to concentrate on academic tasks, is another significant characteristic. This may encompass misplacing personal goods due to forgetfulness or negligence for tasks and possessions, both of which are commonly observed in children with ADHD (Barkley, 2006).

Defiance and Opposition. Defiant and oppositional behaviors are marked by a child's failure to adhere to commands and expectations, including disregarding teachers or participating in activities designed to distract others. Disputing with peers, initiating conflicts, and resorting to deceit or cursing when confronted are prevalent behaviors that undermine classroom dynamics and provide difficulties for educators and fellow students (Loeber & Burke, 2011).

Disruptive and Disobedient Conduct. Intentional behaviors that disturb others, such as disturbing peers' tasks or conversing during class, are prevalent among youngsters displaying disruptive behavior. This behavior is frequently observed in children with behavioral disorders or individuals who struggle to conform to societal norms and school standards (Frick & Nigg, 2012).

Factor 2: Emotional Dysregulation

Emotional dysregulation emphasizes challenges in emotion management, resulting in disproportionate responses to insignificant occurrences. Children demonstrating this behavior may demonstrate emotional reactions that appear excessive for the circumstances, frequently responding emotionally to minor difficulties (Gross & Thompson, 2007). This emotional instability can dramatically disrupt a child's social interactions and academic achievements.

Depressive Symptoms. Depressive symptoms in children can present as melancholy, hopelessness, and self-deprecation. A kid who frequently experiences feelings of sadness or helplessness may exhibit symptoms of depressive illness, potentially hindering cognitive and emotional development (American Psychiatric Association, 2013).

Anxiety and Physical Symptoms. Anxiety in children may manifest as persistent anxiety, heightened dread, and physiological symptoms such as tachycardia and dyspnea. A youth exhibiting "persistent anxiety" or repeated "fearfulness" may be suffering from an anxiety disorder that substantially impairs their capacity to focus or do tasks in an educational environment (Cartwright-Hatton et al., 2006). Physiological signs like "tachycardia" and "hyperventilation" frequently indicate anxiety and are typically linked to the body's fight-or-flight response.

Factor 3: Defiance and hostility

Defiant conduct is characterized by defiance with authority and resistance to rules, whereas hostility denotes an aggressive or confrontational disposition towards others. Children exhibiting these traits may challenge authority adults, decline to cooperate, and manifest anger or hostility when faced. This may appear in behaviors such as "disrespecting educators" or participating in "activities that distract others" (Burke, Loeber, & Birmaher, 2002).

Children displaying these behaviors may have difficulty adhering to school regulations and sustaining positive peer relationships, thereby intensifying their emotional issues. Hostility, frequently associated with resistance and aggression, may manifest in behaviors such as dishonesty or profanity when confronted, signifying an inability to accept control and accountability for one's actions (Frick & Nigg, 2012).

Anxiety and Fear. Anxiety and apprehension in teenagers may lead to defensive behaviors and aggressive emotions, particularly when they view themselves as incapable of managing stress. This may present as anxious behaviors, such as persistent anxiety or chronic worry, when a youngster exhibits hesitance to participate in activities or socialize owing to fear of negative assessment or failure. Studies indicate that children with anxiety disorders are more likely to exhibit externalizing behaviors, such as disobedience and violence, as a means of managing emotions of helplessness or perceived threat (Muris et al., 2001).

Impulsivity and Hyperactivity. Impulsivity and hyperactivity, fundamental characteristics of ADHD, are defined by an inability to modulate behavior in reaction to environmental cues. Children may exhibit behaviors such as "impulsive questioning," "fidgeting instead of remaining seated," and "responding before the question is fully articulated." Impulsive behaviors might result in classroom disturbances and challenges in adhering to instructions or finishing assignments. Hyperactivity frequently leads to an incapacity to remain seated or concentrate during sessions, thereby impacting attention and learning (Barkley, 2006).

Attention and Memory Problems. Impairments in attention and memory are critical indications of neurocognitive challenges that may obstruct children's growth in educational and social environments. Children exhibiting attention deficits, including task inattention or diminished concentration during educational activities, may encounter difficulties in completing assignments or adhering to directions (Barkley, 2006). These issues may be critical indicators of Attention-Deficit/Hyperactivity Disorder (ADHD), characterized by the child's challenges in sustaining attention, regularly losing possessions, or committing careless mistakes due to insufficient concentration (Faraone et al., 2005).

Moreover, memory impairments, including forgetfulness or challenges in retrieving essential information, can impede a child's academic performance and social engagement (Grodin et al., 2018). Studies indicate that these cognitive deficits frequently correlate with emotional dysregulation, oppositional behaviors, and impulsivity, resulting in a multifaceted array of challenges in educational settings (Loeber & Burke, 2011).

Factor 4: Low self-esteem and Confidence issues

Low self-esteem is defined by a reduced self-evaluation, frequently exhibiting sentiments of worthlessness or inadequacy. Children with diminished self-esteem may exhibit a lack of confidence in their capabilities, resulting in academic underperformance and social isolation. Symptoms such as persistent fatigue and feelings of inadequacy may indicate the internal conflict these adolescents experience in attaining a positive self-image. Studies indicate that children with diminished self-esteem frequently encounter difficulties in establishing healthy connections due to insufficient confidence, resulting in their avoidance of social activities (Harter, 2012).

Mood Disturbances. Mood disturbances are intimately linked to low self-esteem, and children with self-worth issues frequently encounter unstable emotions. These challenges may present as recurrent sorrow, irritation, or episodes of anger, further hindering the child's capacity to manage daily situations (Rosenberg, 2015).

Lack of Motivation and Interest. Children exhibiting low self-esteem and emotional disorders frequently demonstrate a considerable deficiency in motivation and interest in activities. This absence of drive is evident in school assignments, when children may appear disinterested, exhibit minimal effort, or evade work entirely. These children may find it challenging to establish or attain personal objectives and frequently lack motivation in the classroom. Studies demonstrate that children who perceive insecurity over their capabilities are less inclined to engage in risk-taking or self-challenge, apprehensive of failure or rejection (Deci & Ryan, 2008).

The scale's internal consistency was excellent, with a Cronbach's Alpha of 0.96, indicating that the items reliably assess the same construct. Test-retest reliability was also strong, with a positive correlation between initial and subsequent readings taken 2 weeks apart, demonstrating the scale's consistency over time. This ensures the scale can reliably evaluate behavioral and emotional issues in children across different instances.

The study evaluated the convergent validity of the CBEPAS by juxtaposing it with the EBPS, revealing a robust positive correlation ($r = 0.72$), signifying that both scales pertain to analogous emotional and behavioral concerns. Divergent validity was assessed by connecting the CBEPAS with the Perceived Social Support Scale (PSS), revealing a negative association ($r = -0.37$), indicating that increased social support is associated with less emotional and behavioral problems. This verifies that the CBEPAS and PSS assess different structures.

The results of the convergent and divergent validity evaluations provide strong evidence for the construct validity of the CB-EPAS. The scale exhibits strong positive correlations with relevant measures and negative correlations with irrelevant ones, confirming its ability to accurately assess specific emotional and behavioral issues while distinguishing them from extraneous factors like social support.

Conclusion

The development and validation of the Classroom Behavioral and Emotional Problems Assessment Scale (CB-EPAS) provides a comprehensive tool for identifying and assessing behavioral and emotional issues in children, especially within the Pakistani cultural context. The study emphasized critical characteristics like impulsivity, emotional dysregulation, defiance, and low self-esteem, consistent with other research that stresses the necessity of early identification and assistance for children encountering these difficulties (Barkley, 2006; Loeber & Burke, 2011).

The thorough development process of the CB-EPAS, which included focus groups, content validation, pilot testing, and factor analysis, confirmed its reliability and validity, underscoring its importance in educational and clinical contexts. The high Cronbach's alpha (0.98) and strong test-retest reliability confirm the scale's effectiveness as a dependable tool for identifying emotional and behavioral issues in children. The validity was further confirmed by significant correlations with established measures like the Emotional and Behavioral Problem Scales (EBPS), so enhancing its practical utility. The complex interplay of emotional, behavioral, and cognitive factors in child development renders the CB-EPAS a vital instrument for educators and clinicians. Future research should focus on expanding its application across many cultural contexts, improving its ability to identify subtle behavioral and emotional issues, and evaluating the effectiveness of therapies based on CB-EPAS findings. This technique can substantially improve the development of effective, culturally pertinent support systems for children experiencing emotional and behavioral challenges.

Scoring system of Classroom Behavioral and Emotional Problems Scale (CBEPAS)

Sub Scales	Range of scores	Category	Treatment
	0 – 30	Mild	Behavioral modification by teachers
Sub Scale 1: Impulsivity and hyperactivity			
	31 – 60	Moderate	Needs clinical attention
	61 – 90	Severe	
	0 – 20	Mild	Behavioral modification by teachers
Sub Scale 2: Emotional dysregulation			
	21 – 40	Moderate	Needs clinical attention
	41 – 60	Severe	
Sub Scale 3: Defiance and hostility	0 - 15	Mild	Behavioral modification by teachers
	16 - 30	Moderate	Needs clinical attention
	31 - 45	Severe	
Sub Scale 4: Low self esteem and confidence issues	0 - 11	Mild	Behavioral modification by teachers
	12 - 23	Moderate	Needs clinical attention
	24 - 35	Severe	

Limitation And Recommendation for Future Research

The study has several limitations, including a sample confined to specific schools and locales, which may affect the generalizability of the findings, along with possible biases in teacher assessments. Future research should examine the wider use of the scale in digital tools for improved data collection and feedback, while also highlighting its importance in the timely detection and intervention of behavioral issues. Furthermore, enhancing teacher training and the integration of qualitative and quantitative data could increase the scale's reliability and effectiveness in assessing children's emotional and behavioral needs.

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