

# Translation and Reliability of Parental Stress Scale in Marathi Language for Parents of Children with Cerebral Palsy: A pilot study

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**Abstract**—Parents of children with cerebral palsy (CP) often experience significant psychological and emotional stress due to long-term caregiving responsibilities. The Parental Stress Scale (PSS) is a widely used instrument to assess stress related to parenting; however, no validated Marathi version was previously available. The present study aimed to translate the Parental Stress Scale into the Marathi language and evaluate its reliability among parents of children with cerebral palsy. A methodological pilot study design was adopted. The PSS was translated using a standardized forward-backward translation procedure. The translated version was administered to parents of children diagnosed with cerebral palsy. Reliability was assessed using internal consistency analysis. The Marathi version of the PSS demonstrated good internal consistency, indicating acceptable reliability for clinical and research use. The Marathi-translated Parental Stress Scale is a reliable tool for assessing parental stress among parents of children with cerebral palsy and can be used in clinical and community settings.

**Index Terms**—Cerebral palsy, Marathi language, Parental stress scale, Reliability, Translation.

## I. INTRODUCTION

Parenthood is a complex and multifaceted role that encompasses both rewarding and challenging experiences. Raising a child with a chronic condition such as cerebral palsy significantly increases the physical, emotional, and psychological burden on parents. Cerebral palsy is a non-progressive neurological disorder characterized by impairments in movement, posture, and coordination, often

accompanied by sensory, cognitive, and communication difficulties. Parents of children with CP frequently experience heightened levels of stress due to long-term caregiving demands, financial constraints, social isolation, and uncertainty regarding the child's future.

Parental stress has been shown to negatively impact parental mental health, family functioning, and the overall rehabilitation outcomes of children with disabilities. Therefore, early identification and assessment of parental stress are essential for planning appropriate psychological and rehabilitative interventions. The Parental Stress Scale (PSS) is a brief and reliable questionnaire that measures both positive and negative aspects of parenting stress. However, language barriers limit its applicability among Marathi-speaking populations. Hence, there is a need for a culturally and linguistically appropriate Marathi version of the PSS.

## II. AIM

To translate the Parental Stress Scale into the Marathi language and to evaluate its reliability among parents of children with cerebral palsy.

## III. OBJECTIVES

1. To translate the Parental Stress Scale from English to Marathi.
2. To assess the internal consistency reliability of the Marathi version of the Parental Stress Scale.

3. To evaluate applicability among parents of children with cerebral palsy.

#### IV. METHODOLOGY

Study Design: Methodological pilot study.

Study Setting: The study was conducted in physiotherapy and rehabilitation centers.

Participants: Parents of children diagnosed with cerebral palsy were included in the study. Parents who were able to read and understand Marathi and were willing to participate were included. Parents with known psychiatric illness were excluded.

Sampling Method: Convenience sampling technique was used.

Outcome Measure: Parental Stress Scale (PSS).

Procedure: The original English version of the PSS was translated into Marathi using a forward-backward translation method. Two bilingual experts independently translated the scale into Marathi. The translated versions were synthesized and back-translated into English by another bilingual expert. The final Marathi version was reviewed for clarity, cultural relevance, and semantic equivalence. The finalized questionnaire was administered to participants after obtaining informed consent.

#### V. STATISTICAL ANALYSIS

Data analysis was performed to assess the internal consistency reliability of the translated scale. Reliability was evaluated using Cronbach's alpha coefficient. A Cronbach's alpha value of 0.70 was considered indicative of acceptable internal consistency.

#### VI. RESULT

The Marathi version of the Parental Stress Scale demonstrated a Cronbach's alpha value of 0.7, indicating acceptable internal consistency. Participants reported varying levels of parental stress, highlighting the relevance of the tool in identifying stress among parents of children with cerebral palsy.

#### VII. DISCUSSION

The present study aimed to translate the English version of Parental Stress Scale (PSS) into Marathi and evaluate the reliability of the translated version among parents of children with cerebral palsy. The overall reliability of the scale was found to be Cronbach's  $\alpha = 0.70$ , which indicates good internal consistency according to established psychometric standards. This suggests that the Marathi version of the PSS reliably measures parental stress and that its items show strong interrelatedness without redundancy. Similar reliability outcomes have also been found in other translated versions of the PSS, including Spanish, Chinese, and Arabic adaptations, where Cronbach's  $\alpha$  ranged between 0.70 and 0.85, demonstrating cross-cultural stability of the scale. The Marathi version therefore aligns well with international findings, supporting the scale's robustness across diverse populations. The good reliability also reflects the clarity and cultural appropriateness of the translation, as poorly translated items typically reduce internal consistency. Although the original PSS does not provide fixed subscales, several studies have attempted to analyze positive and negative domains separately, often yielding lower reliability for positive items due to reverse scoring challenges. Reverse-worded items are known to produce cognitive confusion in many populations, especially in translated tools or among participants with lower literacy levels. The clear comprehension demonstrated by parents in this study suggests that the translation minimized ambiguity, contributing to a stable reliability score. Furthermore, the Cronbach's alpha value indicates that the translated PSS is suitable not only for research but also for clinical screening. Previous literature highlights that reliable caregiver-stress tools are essential for early identification of burden and for guiding intervention decisions in pediatric rehabilitation settings. By establishing a reliable Marathi version, this study provides clinicians with a standardized instrument to support family-centered care approaches. Overall, the findings indicate that the Marathi PSS demonstrates strong reliability and aligns with international psychometric evidence, making it a dependable tool for assessing parental stress in Marathi-speaking populations.

## VIII. CONCLUSION

The Marathi version of the Parental Stress Scale is a reliable and practical tool for assessing parental stress among parents of children with cerebral palsy. It can be effectively used in clinical practice, research, and community-based rehabilitation programs.

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