

SCaRES – Scoliosis Caregiver Response and Emotional Scale: a Rasch-validated questionnaire to measure the psychological impact of children's scoliosis on their parents

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Purpose: Having a child diagnosed with Idiopathic Scoliosis (IS) can be stressful for parents who report higher rates of mood disturbances, anxiety, and diminished quality of life (QoL). Currently, there are no questionnaires to assess the QoL of this population. This study aimed to develop a Rasch-validated questionnaire to measure the impact of their children's pathology and treatment on the QoL of parents of IS patients.

Methods: We designed a cross-sectional psychometric study; we used a conventional approach for content analysis on an online blog addressed to patients and families with scoliosis to identify parents' self-reported problems affecting their QoL. Progressively refined versions of the questionnaire were administered to parents caring for a child with IS. Rasch analysis was performed.

Results: The final version of the questionnaire consisted of 18 items rated on a 4-point Likert scale. The variance explained was 14.39 eigenvalue (44.4%). The variance in 1st contrast was 2.56 eigenvalue (7.9%). All the 18 items fit the Rasch model. The questionnaire targeting was satisfactory. The Person's ability spanned 6.99 logits from -5.17 to 1.82 with an ability mean measure of -1.41 logits (SD = 1.14 logits). Item difficulty spanned 2.07 logits from -1.17 to 0.90. Reliability was 0.83, allowing for the distinction of the 3.32 strata participant's mean. No DIF was noted for parents' age, sex, or the child's age and sex.

Conclusion: The questionnaire reliably measures the QoL of parents of children with IS. These findings support its validity and possible implementation in clinical settings.