Introduction

Anxiety is one of the most common reactions experienced by children when confronted with most healthcare encounters. This can have both immediate and delayed adverse effects. Often assessment and subsequent management of state anxiety are not performed because of the lack of a clinically useful state anxiety scales.

The purpose of this study was to examine the concurrent validity and reliability of a 0-10 state anxiety scale to provide a valid and reliable children’s self-report state anxiety scale.

Methods and Materials

1. Analyze the importance of assessing a child’s anxiety level in a health care setting.
2. Evaluate the effectiveness of the Numeric 0-10 State Anxiety Scale administered to children, ages 7-13 years, in a pre-operative setting.
3. Analyze the concurrent validity and reliability of a self-report numeric 0-10 state anxiety scale administered to children, ages 7-13 years, in the preoperative setting.

Results

The findings from this study show strong correlations between the Numeric 0-10 State Anxiety Scale and the state portion of the State-Trait Anxiety Inventory for Children.

These findings provide continuing support for the 0-10 scale’s concurrent validity. In addition, the strong correlations reported for the 0-10 scale’s test, retest provides new evidence for the scale.

Pearson’s correlation and Spearman’s rank correlation were used to assess the association of the state portion of the State-Trait Anxiety for Children (STAIC) with the Numeric 0-10 State Anxiety Scale and analyze the scale test-retest reliability. Statistical significance was declared at the 0.05 level. The Spielberger anxiety score and the anxiety scale were highly correlated with Pearson r=0.86 (p<0.0001) and 95% confidence interval 0.79–0.91; this was confirmed using the Spearman ρ. Test and retest values for the anxiety scale were also highly correlated with Spearman ρ=0.95 (p<0.001). Cohen’s inter-rater agreement score was κ=0.868 (p<0.001).

Conclusion

This study supports the use of the Numeric 0-10 State Anxiety Scale to assess state anxiety in children as young as 7 years old.

A clinically relevant anxiety scale can help clinicians identify children at risk for adverse consequences; therefore, appropriate healthcare interventions may be provided to the most vulnerable children.

References


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