CHAOS Scale – Permissions and Recommendations for Use

- Permission to Use
  - After requesting permission to use from the scale author, William Kronenberger, Ph.D. (wkronenb@iupui.edu), the requesting individual may use and reproduce the CHAOS scale for clinical and research purposes, with the following limitations:
    - The user may not alter the CHAOS scale without additional permission from the scale author.
    - The user may not post or distribute the scale in electronic or written form. It is allowable to provide a link to the author’s website.
    - Distribution of the CHAOS to any other individual or organization requires additional permission.
    - Use of the CHAOS in a for-profit endeavor such as a clinical trial by a for-profit organization requires additional permission.
    - The user must be appropriately qualified for use of the scale.
  - Any additional permissions should be sought by contacting the scale author at wkronenb@iupui.edu.
  - Please provide appropriate citations to CHAOS scale articles if the CHAOS is being used for research purposes.
- Appropriate use of the CHAOS scale
  - Users of the CHAOS scale are expected to follow rules for test user qualifications and test use as described by organizations such as the American Psychological Association.
  - Clinical users of the CHAOS scale should follow standards for use of behavior checklists to enhance clinical work. These standards generally recommend that behavior checklists be used to augment clinical care and not to substitute for other methods of evaluation. In particular, it is generally accepted that behavior checklists should not substitute for interview and other methods of direct observation/evaluation as a part of the diagnostic process.
  - Users of the CHAOS scale should be familiar with scale research and psychometrics. Please consult our research (especially Levy et al., 2014, Journal of Attention Disorders) for information about scale development and psychometrics.
- General Notes on Interpretation
  - A large body of research has demonstrated that symptoms of ADHD (e.g., attention problems, disorganization, hyperactivity, impulsivity), Oppositional-Defiant Disorder (oppositionality, defiance, anger control problems), and Conduct Disorder (conduct problems, rule-breaking) occur on a continuum. Therefore, CHAOS raw scores can be interpreted as ordinal- or interval-level data.
  - Nevertheless, there is a need for some benchmark values to assist in understanding CHAOS scores. Levy et al. (2014, Journal of Attention Disorders) provide some preliminary analyses showing that a raw score of 5 on the Attention Problems or Hyperactivity-Impulsivity subscales had good sensitivity but modest specificity for patients with an ADHD diagnosis compared to patients with other psychiatric diagnoses. A raw score of 10 on the Attention Problems or Hyperactivity-Impulsivity subscales had good specificity and moderate sensitivity for the ADHD diagnosis. Therefore, raw scores in the range of 5-10 on the Attention Problems and Hyperactivity-Impulsivity subscales may be used as reference benchmarks for meaningful elevations. We have found the 5-10 range to also apply to the Oppositional Behavior subscale. At this time, we do not have sufficient data to suggest benchmark ranges for the Conduct Problems subscale, although benchmark scores are expected to be substantially lower than the 5-10 range used for the other 3 subscales.
  - The CHAOS validity scales (Underreporting and Overreporting) should not be used at this time. We are currently researching the parent-report versions of these scales. Preliminary evidence indicates that they are not valid for teacher-report.
- For any additional questions or information (including permission to use the CHAOS scale), please contact the scale author, William Kronenberger, Ph.D. (wkronenb@iupui.edu).