

**Assessing Resilience in Youth Exposed to Trauma:
Development of the Life Assets and Values Assessment**

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The purpose of this study was to quantitatively investigate resilience in youth exposed to trauma by (1) further developing a scale to assess resilience (Life Assets and Values Assessment, or LAVA[©]); and (2) collecting data for the subsequent validation tests and the estimation of empirical relationships between the LAVA and conceptually related measures. This study is the first report on preliminary results of a multi-year project.

Instrument Development and Exploratory Factor Analysis Development of Items to Assess Resilience in Youth Exposed to Trauma

Development of scale items followed recommendations by O'Hara and Lee (2004) for theoretical structure and consisted of three phases. Firstly, pre-existing LAVA items were examined for their theoretical content. Secondly, additional items were generated. Thirdly, items were submitted to expert review by education professionals for content validity check. These phases are outlined below.

The pre-existing LAVA consisted of 75 items. These items were evaluated and assigned to the subcategories of personal, family and community factors of resilience as proposed by O'Hara and Lee (2004). Next, multiple sources were used to generate additional items representing resilience in youth exposed to trauma, as recommended by Crocker & Algina (1986): (a) through additional review of the interdisciplinary literature on resilience; and (b) through use of three focus groups. Focus group I consisted of eleven mental health professionals staffing youth and family mental health treatment facilities. Focus group II consisted of ten experts in the fields of child trauma. These

experts were recruited by the clinical staff of Catholic Charities in Jackson, MS and Alisos Institute in Santa Barbara, CA. As experts working in environments such as hospitals, academia, and private practice, the members of Focus group II were selected for the depth and length of experience in their fields, academic standing and reputation, and expertise in areas such as child abuse and foster care. Focus group III consisted of thirteen adolescents currently receiving mental health services at Catholic Charities in Jackson, MS. Participants were given the pre-existing LAVA scale and discussed factors relevant to resilience in youth. Analysis of transcripts from these focus groups resulted in the generation of additional subcategories of the resilience factors and corresponding items. These efforts resulted in a total of 184 items.

In order to improve content validity, four education professionals (three university researchers and one teacher specialist) with expertise in resilience in youth were recruited to rate each item on (1) content appropriateness for the hypothesized factor subcategory, (2) appropriateness in assessing resilience in youth exposed to trauma, and (3) clarity of the item using 5-point scales ranging from 1 (not at all appropriate or clear, respectively) to 5 (very appropriate or clear, respectively) and provide qualitative feedback. Items with average ratings below 3 were dropped or revised, resulting in 147 items.

These 147 items constitute the Preliminary LAVA, or P-LAVA (see Appendix A). The response format is a four-point Likert-type scale (1= That's me; 2 = Sometimes me, 3 = Mostly not me, 4 = Not me at all) with which participants rate how much they agree or disagree with the item.

Participants

The current sample of participants consisted of 62 youth. 83.9% (n = 52) of the participants identified themselves as African American, 6.5% (n = 4) identified as white, and five youth identified as Latino/a, Native American, Multiracial, or Other. One youth declined to state race or ethnicity. Thirty-nine (62.9%) identified themselves as female, 22 (35.5%) as male, and one participant declined to state sex. Participants ranged in age from 11 to 18, with a mean age of 14.74 years (SD = 1.55).

Procedure

The participants were recruited by mental health professionals in the course of receiving therapeutic services in the Jackson, Mississippi area. All participants were referred for services as a result of their reporting of one or more traumatic experiences. Written parental or guardian consent and youth assent were obtained. A scripted introduction describing the purpose of the questionnaires, rights as participants, and instructions for questionnaire completion was read to participants (Appendix B).

Questionnaire packet

The questionnaire packet consisted of the following instruments: the Preliminary Life Assets and Values Assessment Scale (P-LAVA) consisting of 147 items (Appendix A), a measure of emotional and behavioral strengths, a measure of external and internal assets, a measure of trauma symptoms, and a demographic information sheet. The instruments were presented in counterbalanced order.

Emotional and behavioral strengths measure. The Behavioral and Emotional Rating Scale 2 Youth Rating Scale (BERS-2; Epstein, 2004) is a 57-item measure

tapping interpersonal strengths, family involvement, intrapersonal strengths, school functioning, and affective strengths. The scale uses a Likert-type format with a range of 0 (*not at all like me*) to 3 (*very much like me*) and includes items such as “I can express my anger in the right way.” The BERS 2 has exhibited good internal consistency reliability, with coefficients exceeding .80 for each subtest and .95 for the overall score. Content, construct and criterion-related validity have been confirmed in over 15 studies (Epstein, 2004).

External and internal assets measure. The California Healthy Kids Survey – Resilience and Youth Development Module (CHKS-RYDM; California Department of Education, WestEd, and Duerr Evaluation Resources, 1999): CHKS-RYDM measures 11 external assets and six internal assets. External assets tested include high expectations, caring relationships, and opportunities for meaningful participation in the school, home, peer group, and community. Internal assets identified are self-efficacy, cooperation and communication, self-awareness, empathy, problem solving, and goals and aspirations. The High School Questionnaire (Version H7) contains 56 items with varying Likert-type scales. Moderate to high alpha coefficients (from .55 to .88) have been reported (Jimerson, Sharkey, Nyborg & Furlong, 2004).

Trauma symptoms measure. The Trauma Symptom Checklist for Children (TSCC; Briere, 1996) is a 54-item measure of posttraumatic distress in children who have experienced traumatic events. Items describe what children may think, feel and do, and such as “getting mad and can’t calm down” and “feeling like I’m not in my body.” The Likert-type four-point response scale ranges from 0 to 3 (0 = never, 3 = almost all of the

time). Reliability analyses have demonstrated moderate to high internal consistency with alpha coefficients of .58 to .89 (Briere, 1996).

Demographic Sheet. Respondents were asked to complete a demographic information sheet indicating age, sex, grade level, ethnicity, and so on. Two open-ended questions asked, “How you are feeling today?” and “What are your favorite ways of helping stay calm, creative and happy?”

Results

The sample size of the Year 1 study (n=62) presents challenges for data analysis and the interpretation of results. As this preliminary study is part of on-going efforts in multi-year data collection, the following results are inconclusive and serve only as guidelines for additional research.

Exploratory factor analysis was used to examine the emerging underlying structure of the scale. Principal component analysis was conducted on the initial 147 items. The seven-factor solution provided the cleanest factor structure and accounted for approximately 48.6% of the variance. The loadings of items on factors based on varimax rotation are shown in Appendix C. The items are listed in descending order by the factor on which they load highest, in order to facilitate interpretation. Similarly, items with less than .40 loadings on one factor were omitted. Twenty-two items exhibited cross-loadings greater than .40. These items were not deleted, pending additional data analysis. Also, the 21 items that loaded less than .40 will be retained for subsequent analyses.

The preliminary factors varied in their conceptual clarity and exhibit instability, as to be expected with this small sample. Items loading on components 1, 2, 3 and 5 reflect the following concepts, respectively: (1) positive home and community factors; (2) self-efficacy and self-perceived competence; (3) risk factors; and (5) close peer relations. Items loading on components 4, 6, 7, 6, and 7 are less clear, lacking unifying underlying concepts. Thus, factors 4, 6, and 7 cannot be reliably labeled at this time. Additional

analyses with larger samples are likely to provide a more robust and definitive factor structure.

Analyses were conducted to assess the reliability of the P-LAVA. However, only 23 of the 62 cases included complete data. Thus, the preliminary alpha coefficient of .92 provides limited information. The inter-item correlational analyses, nonetheless, presented correlations amongst the 147 items helpful in assessing redundancy. Appendix D summarizes inter-item correlations greater than .70. Fifteen items with four or more correlations greater than .70 were identified and are likely to be deleted, pending subsequent analyses of larger samples. These items are presented in strike-through format in Appendix C.

Due to the instability of the current preliminary factor structure, validation tests to examine relationships between P-LAVA and the validation instruments BERS, CHK-RYM, and TSCC were not conducted at this time.

Discussion

The purposes of this study were to empirically develop a scale of resilience relevant to youth exposed to trauma, and to begin data collection for validation tests. To advance these goals, this study had two primary objectives: (1) to further develop the Life Assets and Values Assessment (LAVA[©]); and (2) to provide preliminary psychometric data on the LAVA. This investigation is an initial step in a larger project assessing resilience in youth exposed to trauma. Results of this study provided promising initial support for the LAVA. The development of the LAVA will contribute to the emerging literature and clinical assessment of resiliency.

The most significant outcome of this study was the production of a preliminary instrument, the P-LAVA, a strengths-based assessment in youth exposed to trauma. Its 147 items are the result of qualitative and quantitative review and analysis. The development of the LAVA is an important beginning step in empirically examining resilience. However, there are limitations to the current investigation. An obvious shortcoming is the lack of statistical validity due to the low sample size. All analyses conducted in this study are provisional and require a larger sample for replication.

The study's use of data from a sample within a specific localized project may compromise the generalizability of the findings. The sample consisted entirely of Mississippi youth exposed to trauma, with over 80% of participants identifying as African American. Responses may vary in different regions, with youth of other minority groups, and amongst the general population of youth exposed to trauma. Also, socioeconomic status was not assessed. Unless a more diverse sample can be used, it will be necessary to determine the applicability to other populations before using this instrument with them.

Future directions

As this project moves into its second year, a number of recommendations are presented for consideration. Given the large number of P-LAVA items, sample size upwards of 1000 would afford more powerful analyses (DeVellis, 2003). In particular, confirmatory factor analysis would be useful by providing information vital to refining the model of resilience in youth exposed to trauma.

Because underlying factors of LAVA may not be independent, continued exploratory factor analytic studies utilizing oblique rotation are recommended to provide indicators of LAVA's construct validity. A larger sample is likely to improve interpretability of the emerging factor structure in subsequent investigations.

Refinements of LAVA may include revising or deleting items that consistently perform poorly. Reliability analyses to identify and confirm additional items with high inter-item correlations to be deleted are dependent on continued data collection efforts. Further examination is needed to ensure inclusion of those items potentially of interest theoretically and practically. Analyses of LAVA's internal consistency should also include test-retest reliability. This would provide evidence of the stability of scores on the instrument.

Expanding the database to include more diversity in participants could lead to increased external validity and generalizability of findings. Efforts to recruit youth from different geographic regions, from diverse cultural, racial, ethnic and religious backgrounds, representing ranges of ability and disability, inclusive of youth of diverse sexual orientations, and reflecting a range of mental health issues are crucial.

Validity tests must be conducted to explore relationships between LAVA, BERS, CHK-RYM and TSCC. This will provide estimates of discriminant and convergent validity.

A potential shortcoming of the LAVA is its self-report format. While it was designed to tap self-perceived resilience and risk factors, it may not be reflective of actual thoughts, behaviors, and feelings. Clearly, the same problem may exist with the other measures: BERS, CHK-RYM and TSCC. Further studies of the LAVA should include

parent/guardian and teacher observations to provide the opportunity to use a multitrait-multimethod approach to validation. To this end, the BERS Parent or Teacher Rating Scale or similar instrument should be utilized when possible.

Counterbalanced order of presentation of the research measures in the questionnaire packets will enable the detection of order effects in future studies. Future studies of the LAVA may consider further controlling for order and sequence effects by using multiple Latin squares in the presentation of the measures.

Because the ethical collection of data from traumatized youth frequently requires the establishment and maintenance of a clinical relationship, data collection should proceed with the best interests of each child in mind.

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