

# A Formal Assessment of Resilience: The Baruth Protective Factors Inventory

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## Abstract

Concepts of resiliency have been widely discussed. The accessibility of formal psychological inventories to assess resiliency is lacking, however. The Baruth Protective Factors Inventory (BPFI) was developed to identify the presence of greater resilience in individuals. The authors discuss this development aimed at formally assessing the incidences of four primary protective factors: (a) Adaptable Personality, (b) Supportive Environment, (c) Fewer Stressors, and (d) Compensating Experiences. Data pertaining to the sample, validity, and reliability of the inventory are presented. This research represents an initial endeavor to develop an instrument to measure resiliency.

Educational and therapeutic processes for most Adlerian-oriented professionals are rooted in encouragement. Watts and Pietrzak (2000) proposed that Individual Psychology embrace and promote client resiliency as a focus for encouraging persons to facilitate change and to develop more adaptive views on difficulties they may experience. Encouraging individuals to employ those elements of resiliency they possess can help to bring out their strengths and resources and enhance their problem-solving abilities.

Papalia, Olds, and Feldman (1998) summarized the literature in suggesting that resiliency encompasses several primary "protective factors." These include (a) Compensating Experiences, (b) Fewer Stressors, (c) Supportive Environment, and (d) Adaptable Personality. Higgins (1994) claimed hardy individuals not only survive countless negative emotional experiences but also actively continue to grow and develop, rather than regress. While all people to some degree possess resiliency and those protective factors that are inherent elements of it, not everyone is equal. For resiliency to be promoted so that individuals can optimally rebound from adverse circumstances as well as enhance their overall well-being, a formal measure of resiliency is needed. The Baruth Protective Factors Inventory (BPFI) was developed for that purpose, and it has been shown to measure reliably these protective factors that contribute to resiliency.

Individuals with an adaptable temperament are likely to use positive rather than negative emotions, such as contentment, when handling adversity. This type of temperament promotes character traits, such as agreeableness or flexibility, which contribute to resiliency (Dumont & Provost, 1999; Frederickson, 2001). Resilient individuals are also likely to have a family member, friend,

or an encouraging community that provide a trusted and supportive environment or relationship. This system gives the individual an encouraging and supportive outlet when facing life stressors (Shapiro, 1996). This system also contributes to the opportunity for compensating experiences for individuals who are not receiving the support they need (Johnson, Bryant, Collins, & Noe, 1998). For example, a child's compensating experience could result from being praised for making good grades by his or her teacher, instead of by his or her distant parent. A more resilient person is also likely to have experienced fewer life stressors. If a person is exposed to more risk factors, the more likely he or she will face educational or relational problems (Gomberg, 1994; Tiet et al., 1998).

### **Protective Factors**

From a resiliency perspective, the most significant developmental task individuals face is the development of protective factors. This task involves overcoming barriers to well-being posed by major risks. This vital aspect of development has not gone unexplored. Among the researchers who have addressed the role of protective factors in individuals' lives are Dumont and Provost (1999); Elder (1974); Elliott (1993); Fergusson and Lynskey (1995); Johnson et al. (1988); Kolvin, Miller, Fleeting, and Kolvin (1988); Luthar (1991); Raybuck and Hicks (1989); Tiet et al. (1998); Watts and Pietrzak (2000); Werner (1989); and Wolff (1995).

Dumont and Provost (1999) wrote that resilient individuals have an adaptable temperament. Resilient individuals are also likely to have at least one supportive and trusting relationship with someone who may or may not be a family member. For example, when parents are unable to provide adequate support for their children, external support systems, such as friends or an encouraging community, can suffice. Such support networks also provide opportunities for experiences that compensate for the less helpful occurrences in individuals' lives. These authors further reported resilient persons' likelihood of having experienced fewer life stressors and risk factors when compared to less resilient individuals.

Werner's (1989) seminal Kauai Longitudinal Study supported the idea of identifying protective factors at a young age. Nearly one-third of high-risk children were found to use protective factors to avoid succumbing to maladjustment, mental illness, disabilities, and delinquency. Kolvin et al. (1988) found that children who had supportive environments or compensating experiences were less likely than a comparison group to become adult criminals. Elder (1974) studied individuals whose families had faced economic hardship during the Great Depression. He found that children who had more positive characteristics, such as an adaptable personality and parental

support, were protected from risk factors such as psychopathology and adult adjustment problems.

Wolff (1995) stressed that the ability to identify protective factors can be critical in clinical practice. Professionals who identify individuals at risk may intervene, promoting greater resiliency and thereby preventing potential problems. By professionals' providing clients with information about protective factors and means of promoting their presence, the clients can then incorporate greater resiliency into their lives. Luthar (1991) reported that helping clients work toward changing their current risk factors, such as negative life events or deficient social support networks, can have positive outcomes and significantly change their lives. Tiet et al. (1998) noted the importance of recognizing school children who possess few resilient factors because they are likely to have low educational aspirations. Children and adults who are more resilient accomplish academically and in the workplace because they are able to manage the stress required to be successful students and workers.

Raybuck and Hicks (1989) suggested that protective factors be encouraged at home. Because of the current complexity of family structure and function, however, some parents do not sufficiently model resiliency. This task then falls on the shoulders of the educational system, as well as the community. Johnson et al. (1998) hypothesized that adolescents are less likely to engage in harmful behaviors if resiliency within the family is strengthened. They also suggested that the onset and frequency of adolescent substance use can be delayed or prevented by reinforcing family protective factors. Elliott (1993) and Fergusson and Lynskey (1995) wrote that strengthening family resiliency can stop the development of antisocial attitudes and behaviors for long-term, high-risk individuals and adolescents.

### **Development of the BPF**

The theoretical basis for the Baruth Protective Factors Inventory (BPF) is supported by research literature that delineates four protective factors: (a) Adaptable Personality, (b) Supportive Environment, (c) Fewer Stressors, and (d) Compensating Experiences. These aspects of resiliency were employed in the development of the BPF.

*Item selection and content validity.* A pool of potential items representing each of the four primary constructs of resiliency identified in prior research were developed for the BPF: (a) Adaptable Personality, (b) Supportive Environment, (c) Fewer Stressors, and (d) Compensating Experiences (Garmezy, 1985; Garmezy, Masten, & Tellegen, 1984; Luthar, 1991; Rutter, 1987; Rutter & Quinton, 1984). A senior psychologist/researcher/author with extensive experience relative to resiliency and family resiliency evaluated a pool of initial items for content validity. Of this pool, four items that were most

representative of each of the four resiliency constructs were identified and included for use in the BPFi. The 16 final items were written to be scored using a five-point Likert-type scale. For each item, the most resilient responses received a score of five, while the least resilient responses warranted a score of one. The inventory produces an overall resiliency score (with a possible high of 80 and low of 16) as well as scale scores (with a high of 16 and low of 4) for each of the four resiliency constructs (see Appendix A).

*Normative sample.* In January 2001, 98 undergraduate students in a Human Development course at a university in the southwestern United States participated in the initial norming of the BPFi. Of these participants, 35.7% ( $n = 35$ ) were 19 years of age or younger. Fifty-one percent ( $n = 50$ ) of participants were age 20 to 24 years, and 9.2% ( $n = 9$ ) ranged from 25 to 29 years. The remaining 4% ( $n = 4$ ) of participants were age 30 or above (one age 30–34, one age 35–39, one age 40–44, and one age 50–54). Of the 98 participants, 19 were male and 79 female. The majority of participants were single (80.6%,  $n = 79$ ). The remaining participants were either divorced (3.1%,  $n = 3$ ), married (8.2%,  $n = 8$ ), or coupled/living together (8.2%,  $n = 8$ ). The participants' ethnicity consisted of 42.3% Hispanic American ( $n = 41$ ), 38.1% Anglo American ( $n = 37$ ), 11.3% bi-ethnic ( $n = 11$ ), 3.1% Native American ( $n = 3$ ), and 2.1% African American ( $n = 2$ ). In relation to the participant's family socioeconomic status, 54.1% identified themselves as middle class ( $n = 53$ ), 22.4% upper middle class ( $n = 22$ ), 15.3% lower-middle class ( $n = 15$ ), 5.1% lower class ( $n = 5$ ), and 3.1% upper class ( $n = 3$ ).

*Reliability.* The internal consistency of the overall inventory and the four resiliency scales was examined using Cronbach's Alpha. The overall inventory yielded a reliability estimate of .83. The reliabilities of the four individual scales were: Adaptive Personality, .76; Supportive Environment, .98; Fewer Stressors, .55; and Compensating Experiences, .83. Based on the results of an exploratory factor analysis (which suggested that the four Fewer Stressors items did not correlate highly with the other three scales), the internal consistency of the overall inventory was examined without the presence of the four Fewer Stressors scale items. The adjusted reliability of the overall inventory was .93.

*Empirical validation.* The construct validity of the BPFi scales was examined by comparing performance on the BPFi with an established, more extensive inventory that includes resiliency constructs as part of a wider, more global assessment, the Multidimensional Health Profile: Psychological Functioning (MHP-P; Ruelhman, Lanyon, & Karoly, 1998). The validity of the MHP-P was based on its comparison with a number of instruments. Two temperament and personality inventories, the NEO Five-Factor Inventory (Costa & McCrae, 1990) and the Emotionality, Activity, and Sociability Scale (Buss & Plomin, 1984), were used to determine the validity of the Life Stress construct of the MHP-P. Convergent and discriminant validity was indicated by

the validity coefficients falling in the predicted direction. Six subscales of the COPE Scale (active coping, planning, suppression of competing activities, acceptance, restraint coping, and positive reinterpretation) were used to provide convergent validity to the Coping Skills construct of the MHP-P (Carver, Scheier, & Weintraub, 1989). Adequate convergent validity was demonstrated for the Social Resources construct on the MHP-P by the use of the Interpersonal Support Evaluation List (Cohen, Mermelstein, Kamarck, & Hoberman, 1985) along with the Test of Negative Social Exchange (Ruehlman & Karoly, 1991). Adequate convergent validity of the Mental Health construct of the MHP-P was determined based on the following instruments: SF-36 (Ware, Kosinski, & Keller, 1994), SUNYA (Attanasio, Andrasik, Blanchard, & Arena, 1984), a job satisfaction measure, the Short Form of the Minnesota Satisfaction Questionnaire—General (Weiss, Dawis, England, & Lofquist, 1967), the Beck Depression Inventory (Beck, Epstein, Brown, & Steer, 1988), the Satisfaction With Life Scale (Diener, Emmons, Larsen, & Griffin, 1985), the State-Trait Anxiety Inventory (Spielberger, 1983), and the Center for Epidemiological Studies Depression Scale (Radloff, 1977; Ruehlman, Lanyon, & Karoly, 1998).

Corresponding constructs of the MHP-P and BPFi were compared. The Fewer Stressors scale of the BPFi was compared with the Number of Stressful Events, Perceived Stressfulness of Experienced Events, and Global Stress scales on the MHP-P. The Adaptive Personality BPFi scale was compared with the Total Psychological Distress scale of the MHP-P. The BPFi scale of Supportive Environment was compared with the Social Resources scales of the MHP-P (Emotional Support, Informational Support, Tangible Support, & Overall Support). Finally, the Compensating Experiences scale of the BPFi was compared with the Coping Skills construct of the MHP-P.

Significant correlations were found in three of the four comparisons. The Fewer Stressors BPFi scale correlated moderately with the MHP-P Life Stress domains Number of Stressful Events ( $r = .491, p < .01$ ), Perceived Stressfulness of Experienced Events ( $r = .503, p < .01$ ), and Global Stress ( $r = .417, p < .01$ ). The relationship between the BPFi Adaptive Personality scale and the Total Psychological Distress scale was also statistically significant ( $r = -.274, p < .01$ ). The Supportive Environment scale of the BPFi was also significantly associated with the Informational Support scale ( $r = .218, p < .05$ ).

However, while the Supportive Environment scale of the BPFi did evidence an expected positive relationship, it did not significantly correlate with the MHP-P Emotional Support (SUP-E) ( $r = .134, p > .05$ ), Tangible Support (SUP-T) ( $r = .106, p > .05$ ), or Overall Support (SUP) ( $r = .166, p > .05$ ) scales. The final comparison between the BPFi Compensating Experiences and MHP-P Coping Skills scale was an unexpected negative relationship and also nonsignificant ( $r = -.064, p > .05$ ).

## Discussion

The BPF1 was developed as a formal means of assessing the four primary protective factors that contribute to the presence of resiliency in individuals. Because it is a self-report inventory, data can be influenced by an individual's unique perceptions of their own circumstances. When interpreting the BPF1, it should be kept in mind that a person's perceptions of their past and present experience can be affected by multiple variables (i.e. family, peer group, community influences).

We recognize that factors in addition to these four constructs identified by many researchers (e.g., Garmezy, 1985; Garmezy & Masten, 1986; Garmezy et al., 1984; Luthar, 1991; Rutter & Quinton, 1984;) may contribute to resiliency. Therefore, the factors used to measure resiliency in the BPF1 are not comprehensive or exhaustive. Further research is needed to ascertain the extent to which the four constructs used in the BPF1 adequately reflect the concept of resiliency.

Reliability and validity of the BPF1 need to be further investigated to insure the accuracy and precision of the instrument in the assessment of protective factors. While content validity of the items seems apparent, the lack of statistical significance between Compensating Experiences on the BPF1 with the Coping Skills scale is an issue in need of additional study. It is likely that this could simply be attributable to the small number of participants in this initial study. A greater number of participants and a higher level of statistical power might increase the probability of the relationship's being significant. A significant correlation between three of the four constructs of the MHP-P with the BPF1 suggests acceptable construct validity of the majority of the constructs. Likewise, the distinction between the Fewer Stressors and the other three resiliency scales resulting in a comparatively lower, although median reliability estimate may be attributed to the limited number of participants. Also, it may be that the Fewer Stressor items are measuring perception, as opposed to the other scales' focus on affect, and thus they differentially affect the scales' internal consistency reliability. Furthermore, stressors may not have a unique underlying dimension.

The BPF1 also was developed using a predominantly young, female, and Hispanic American and Anglo American sample. We recognize that the BPF1 cannot be fully generalized to other populations at this time. Comparisons can be made, but further research needs to be completed that includes other populations.

*Use of the scale.* The present research and discussion represents an initial endeavor to develop a formal assessment of four primary protective factors summarized in the literature as contributing to resiliency. With further development, the BPF1 could be useful for educators and other helping professionals

to answer important questions related to possible associations between these basic elements of resiliency and a wide variety of life issues. For example, a counselor begins work with a client who has a complicated life history. The client currently is functioning adequately despite the challenges and negative events in the past. The BPGI could be used to identify those protective factors the client has relied on in the past. These can then be introduced ("re-introduced") during the counseling to cope with current issues and problems. Also, those protective factors the client possesses that are not being optimally used could be identified and their increased impact promoted. Further, the concept of family resilience could be inferred by administering the BPGI to each individual member and determining family congruence scores for each of the four factors. The counselor and family members having such knowledge can then employ that knowledge to lead to promotion of resiliency and enhanced use of associated protective factors within the family system. The BPGI as described herein affords the opportunity to be one step closer to facilitating formal empirical assessment of resiliency.

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## Appendix A

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### The Baruth Protective Factors Inventory

*Directions:* This is an inventory about the stressful events you have experienced in your life and how you have handled them. Please indicate the degree to which you agree or disagree with the following statements by marking strongly agree, agree, neither agree nor disagree, disagree, or strongly disagree for each item.

*Marking instructions:*

- Make solid marks that fill the response completely.
  - Erase cleanly any marks you wish to change.
  - Make no stray marks on this form.
1. There have been more problems than positive experiences with my health status in the past 3 months.
  2. There have been more problems than positive experiences with my finances in the past 3 months.
  3. There have been more problems than positive experiences with my family/friends in the past 3 months.
  4. There have been more problems than positive experiences with my work/school in the past 3 months.
  5. I feel that I am optimistic and concentrate on the positives in most situations.
  6. I feel that I am a creative, resourceful, and independent person.
  7. Most people think I'm friendly and like to be around me.
  8. I feel that I am competent and have high self-esteem.
  9. I have a good relationship with at least one supportive person. (whether in your family or not)
  10. I have at least one caring person in my life. (whether in your family or not)
  11. I feel that I can trust at least one person in my life. (whether in your family or not)
  12. I have at least one person who is interested in my life. (whether in your family or not)
  13. I have been able to resolve many (but not all) of my problems by myself.
  14. I feel that I have control over many (but not all) events in my life.
  15. I feel that I have coped well with one or more major stressors in my life.
  16. I have been able to make "the best out of a bad situation" a number of times.

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