Confirmatory Factor Analysis of the Dysfunctional Attitude Scale in a Student Sample

Sharon K. Calhoon
Indiana University Kokomo

Beck, Brown, Steer, and Weissman (1991) factor analyzed the Dysfunctional Attitude Scale (DAS) in a clinical population, developing nine subscales thought to measure specific cognitive vulnerabilities to depression. As the DAS is often used in research using student populations, the present study sought to confirm whether the Beck et al. factors generalize to student samples. Confirmatory factor analysis of the nine-factor Beck et al. model was performed on DAS responses given by 866 undergraduates. The Beck et al. factor structure was not replicated in the student sample. Principal-axis factoring of these data, as well as results of other factor-analytic studies of the DAS, suggests that three subscales are appropriate for student samples. One combines Beck et al.'s first, third, and seventh factors, one combines Beck et al.'s second and ninth factors, and one replicates Beck et al.'s fifth factor.

KEY WORDS: DAS; confirmatory factor analysis; subscales.

One of the strengths of Beck's cognitive theory of depression (Beck, 1963, 1967, 1987) and its more recent extensions to other forms of psychopathology (Beck, 1976; Beck, Rush, Shaw, & Emery, 1979) is its emphasis on

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2Address all correspondence concerning this article to Sharon K. Calhoon, Department of Social and Behavioral Sciences, Indiana University Kokomo, P.O. Box 9003, Kokomo, Indiana 46904-9003.
measuring relevant constructs. The Dysfunctional Attitude Scale (DAS; Weissman, 1979; Weissman & Beck, 1978) was developed to measure cognitive vulnerability to depression, that is, the strength of underlying tacit beliefs an individual holds which are hypothesized to be activated by congruent stressors to produce negative affect.

The DAS was originally conceptualized as a global measure of vulnerability to depression. Recently, Beck and his colleagues (Beck, Brown, Steer, & Weissman, 1991) sought to develop more specific measures of cognitive vulnerability from the DAS. Using data from pretreatment evaluations of over 2,000 outpatients, they performed an exploratory factor analysis (EFA) of the long (100-item) form of the DAS. Sixty-six of the original 100 items were retained. They found nine factors: (1) Vulnerability, (2) Need for Approval, (3) Success–Perfectionism, (4) Need to Please Others, (5) Imperatives, (6) Need to Impress, (7) Avoidance of Appearing Weak, (8) Control Over Emotions, and (9) Disapproval–Dependence. They proposed that these factors be used to address research questions which have arisen from Beck's more recent (1987) statement of his theory, which asserted that particular dysfunctional beliefs will interact with specific aspects of an individual's personality and with particular stressors. Beck et al. (1991) also suggested their factors might be used as subscales by clinicians assessing the dysfunctional attitudes of their patients (p. 478).

Beck et al. (1991) recognized that, for subscales derived from their factors to be useful in research, "the generalizability of [these nine] factors . . . needs to be determined in populations with different demographic characteristics and in samples that are not self-selected for cognitive therapy" (p. 482). This is especially important because much of the research using the DAS has been conducted using nonclinical samples, usually college students (e.g., Barnett & Gotlib, 1988a; Barnett & Gotlib, 1990; Kwon & Oei, 1992; Olinger, Kuiper, & Shaw, 1987; Power, 1988; Robins & Block, 1989; Whittal & Dobson, 1991).

There have been several other factor-analytic studies of the DAS. Prior to the Beck et al. (1991) factor analysis, researchers factor analyzed two short (40-item) forms of the DAS, using nonclinical samples (Cane, Olinger, Gotlib, & Kuiper, 1986; Oliver & Baumgart, 1985). Although the short forms had been constructed to be similar to the long form and to each other in content, Oliver & Baumgart demonstrated that the two forms were not equivalent to each other, and were less reliable than the long form. However, until the Beck et al. study, no one had factor analyzed the 100-item DAS.

At about the same time Beck et al. (1991) completed their factor analysis, Dyck (1992) factor analyzed the 100-item DAS to develop subscales to measure specific cognitive vulnerabilities. Using data from Aus-