

## EXERCISE BENEFITS/BARRIERS SCALE

### Instrument Development and Scoring Information

Instrument Development. The Exercise Benefits/Barriers Scale was developed in response to a need for an instrument to determine perceptions of individuals concerning the benefits of and barriers to participating in exercise. Items for the scale were obtained inductively from interviews (Pender & Pender, 1983) and from the literature. The resulting instrument has been tested for internal consistency, validity of its constructs and test-retest reliability.

A sample of 650 individuals, primarily from northern Illinois, responded to the instrument. Calculation of Cronbach's alpha for the 43-item instrument yielded a standardized alpha of .954. The 29-item Benefits Scale has a standardized alpha of .954 and the 14-item Barriers Scale has a standardized alpha of .866. Factor analysis yielded a non-factor solution initially with an explained variance of 65.2%. Second order factor analysis yielded a two-factor solution, one a benefits factor and the other, a barriers factor. Test-retest reliability was accomplished with a sample of 66 health adults at a two-week interval. Test-retest reliability was found to be .89 on the total instrument, .89 on the Benefits Scale and .77 of the Barriers Scale.

Instrument Scoring. The instrument may be scored and used in its entirety or as two separate scales. The instrument has a four-response, forced-choice Likert format from 4 (strongly agree) to 1 (strongly disagree). Barrier Scale items are reverse-scored. Barrier Scale items are numbers 4,6, 9, 12, 14, 16, 19, 21, 24, 28, 33, 37, 40, and 42.

Missing data may be handled in one of two ways. If more than five percent of the items are unanswered, it is recommended that the response be discarded. If the missing item response rate is less than five percent, median substitution prevents a falsely low score.

Scores on the total instrument can range from 43 to 172. The higher the score, the more positively the individual perceives exercise. When the Benefits Scale is used alone, the score range is between 116 and 29. When the Barriers Scale is used alone, scores range between 14 and 56. If used alone, the Barriers Scale does not need to be reverse scored. In this instance, the higher the score, the greater the perception of barriers to exercise.

Additional Information. Information about the instrument can be found in the following reference: Sechrist, KR, Walker, SN, & Pender, NJ. (1987). Development and psychometric evaluation of the Exercise Benefits/Barriers Scale. *Research in Nursing & Health*, 10, 357-365. Further information may be obtained by contacting: Dr. Karen Sechrist, 18 Morningstar, Irvine, CA 92715.