



# Examining the Psychometric Properties of the Empathic Concern Scale

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## INTRODUCTION

The Empathic Concern Scale measures empathic concern, which is the tendency to feel concern or sympathy for those who suffer (Barchard, 2001). This poster presents findings from an examination of the scale's internal consistency and validity, results of an item analysis to determine how the internal consistency and validity of this measure could be improved, an item-level factor analysis, and a suggested revision of the measure.

## METHOD

### Participants

- Participants were students in the psychology department in Spring of 2003. Most were undergraduate students enrolled in an introductory psychology course. All students completed this study to obtain research credit towards their psychology classes.
- 149 participants, comprised of 54 males and 95 females
- Ethnicity: Caucasian (52.3%), Hispanic (14.1%), Asian, (11.4%), African-American (10.1%), Pacific Islander (6.7%), Native American (1.3%), and Other (4.0%).
- Age range: 18 to 57 years (mean = 19.60, SD = 3.91).

### Measures

- **Empathic Concern Scale** (Barchard, 2001). A measure that assesses the tendency to feel concern or sympathy for those who suffer. This measure consists of 10 items, half of which are reverse-coded. It uses a 5-point accuracy scale (1 = *Very Inaccurate*, 5 = *Very Accurate*)
- **Nonverbal Emotional Expression Scale** (NEES; Tett, Want, Gribler, & Martinez, 1997). A 12 item scale that assesses the tendency to express one's feelings to others through bodily (i.e., nonverbal) expression. It uses a 6-point agreement scale (1 = *Strongly Disagree*, 6 = *Strongly Agree*).

### Procedure

- Data was collected in two sessions, conducted one week apart.
- The initial session lasted approximately 90 minutes and the second was approximately 60 minutes.
- Participants reviewed and signed a consent form, then completed the measures via computer in an untimed format.
- Sessions were supervised by trained graduate and undergraduate research assistants and the instructions and procedures were standardized.

## RESULTS

- The reliability of the scale is acceptable for research purposes, and the discriminant validity (measured by correlation with NEES) was good.
- Item analysis (alpha-if-item-deleted) determined deleting items would not increase internal consistency.
- All items were valid, except item 9.
- The first principal component analysis demonstrated all items measured same construct.
- Overall, analyses indicated the Scale is interpretable as a one-factor measure with sufficient psychometric properties for research purposes.

Table 1  
Results for Reliability, Validity, and Factor Analysis

Item	Corrected Item- Total Correlation	Alpha-if-Item- Deleted	Correlation with NEES	Pattern Matrix Coefficient
1. Am concerned about others	.44	.71	.20*	.62
2. Feel sympathy for those who are worse off than myself	.47	.71	.15	.69
3. Sympathize with the homeless	.51	.70	.04	.73
4. Believe that criminals should receive help rather than punishment	.39	.72	.05	.52
5. Believe the poor deserve our sympathy	.58	.69	.15	.78
6. Feel little concern for others	.29	.73	.18	-.35
7. Have no sympathy for criminals	.32	.73	.01	-.42
8. Look down on any weakness	.26	.74	.04	-.36
9. Don't like to get involved in other people's problems	.32	.73	.33**	-.40
10. Have little sympathy for the unemployed	.45	.71	.07	-.52

Note. Coefficient alpha for 10 item test is .74. \*  $p < .05$ . \*\*  $p < .001$ .

## DISCUSSION

- Overall, the above tests indicate that the Empathic Concern Scale is interpretable as a one-factor measure with sufficient psychometric properties for research purposes.
- Based on concerns with item clarity and content validity, item revisions may be warranted. We hypothesize that careful revisions will result in greater reliability and higher item-total correlations for some of the weaker items on this scale (e.g. Item 6, Item 8).