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## Human Figure Drawings and House Tree Person Drawings as Indicators of Self-Esteem: A Quantitative Approach

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This study assessed the concurrent validity of Human Figure Drawings (HFD) and House-Tree-Person (HTP) drawings as measures of self-esteem. Adult subjects were requested to make HFD and HTP drawings and to complete measures of psychological adjustment which included the Cooper-Smith Self Esteem Inventory and Tennessee Self Concept Scale. The drawings were scored using a quantitative, composite rating scale derived from HFD and HTP empirical and theoretical literature on psychological health. Results indicated that neither the HFD nor the HTP quantitative composite ratings of psychological health related to the formal measures of self-esteem. © 1998 John Wiley & Sons, Inc. *J Clin Psychol* **54**: 219-222, 1998.

Projective drawings have consistently been rated as among the 10 most frequently used assessment devices (Lubin, Larson, & Matarazzo, 1984; Watkins, Campbell, Nieberding, & Hallmark, 1995). Despite their frequent use, there has been considerable controversy related to their validity (Motta, Little, & Tobin, 1993; Smith & Dumont, 1995). Reviews indicate there has been relatively little support for single signs related to the content of the drawings or in making subtle differential diagnoses (Kahill, 1984). In contrast, global ratings of such areas as level of adjustment (Maloney & Glasser, 1982; McNeish & Naglieri, 1993; Yama, 1990), cognitive maturity (Chappell & Steitz, 1993; Fabry & Bertinetti, 1990; Heiberger, Abell, & Johnson, 1994; Naglieri, 1988), impulsiveness (Oas, 1984), and the presence of organic impairment (McLachlan & Head, 1974) have been able to demonstrate acceptable levels of validity.

One relatively neglected area of investigation is the extent to which projective drawings reflect healthy levels of adjustment. Typically authors mention some aspects of healthy draw-

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ings but spend considerably more time describing indicators of pathology. An exception is Tharinger and Stark's (1990) finding that qualitative, global ratings of children's drawings were able to predict positive aspects of self esteem and family functioning. However, no validity studies have been performed to assess the extent to which a formal, quantitative scoring system based on indicators of psychological health can predict actual dimensions of positive psychological functioning among adults.

The current study represents an attempt to assess the extent to which projective drawing indicators of psychological health relate to more formal and validated measures of positive psychological functioning. Conceptually it would be expected that such relationships might exist given the frequent reference to such indicators in the clinical literature. However, given that such clinical indicators are often used by practitioners, it would be crucial to formally test whether such indicators are valid. It would further be important to use composite ratings of drawings rather than single signs given that reviews of the literature indicate that global ratings have resulted in greater validity.

## METHOD

### *Subjects*

Subjects were 40 undergraduate psychology students (9 male, 31 female) aged from 18 to 47 ( $M = 24.9$ ,  $SD = 7.79$ ). Potential subjects were screened by questionnaire to insure that they had not suffered any neurological disorder (i.e., past head injury) or been taken any medication which might have detrimentally affected their drawing ability.

### *Procedure*

Each subject was administered the Human Figure Drawing test (HFD), House-Tree-Person (HTP), Coopersmith Self Esteem Inventory (CSEI), and the Tennessee Self-Concept Scale (TSCS). The HFD instructions requested that the subject simply draw a picture of a person (HFD1) and, upon completion, they were requested to draw a picture of a person of the opposite sex (HFD2). The HTP instructions requested subjects to draw a picture of a house, a tree, and a person all on the same piece of paper. All subjects were further requested to rate their drawing ability on a five point scale ranging from excellent to poor.

Quantitative, composite ratings of HFD and HTP indicators of psychological health were developed from an earlier review of the adult theoretical and clinical literature by Morena (1981). Each indicator was described in a manual which included instructions to rate the indicators on a scale between 1 (obviously absent) to 5 (strongly present). The following 10 HFD indicators were identified: essential details present, proper proportioning of figure, moderate size of figure, firm line quality, strong appearance of figure, openness of figure, central position of figure, potential of the figure for movement, clear sexual differentiation of figure. The following somewhat similar nine HTP indicators were identified: essential details present; firm line quality; "groundedness" of the house; moderate proximity of the house, tree and person; integration of the house, tree, and person; accessibility of the house; openness and accessibility of the person; presence of homelike objects; healthiness of the tree. Because little success has been achieved using projective drawing single sign indicators, only the quantitative total scores were used in the data analysis.

Interrater agreement was determined by three raters (graduate students in psychology) scoring 20 participant's drawings. Identical scores were given by two out of three raters for 89.5% of the HFD indicators and 88% of the HTP indicators. Internal reliability was determined on all 40 of the participant's HFDs and HTPs using Cronbach  $\alpha$  which resulted in

reliabilities of .69 (HFD1), .50 (HFD2), and .76 (HTP). When the total number of items comprising HFD1 and HFD2 were combined into a single 20 item scale, the Cronbach's  $\alpha$  increased to .77.

## RESULTS

The quantitative total scores for both HFDs (HFD1 plus HFD2) and quantitative total scores for the HTP were regressed on the total CSEI and TSC scores. Neither HFD nor HTP scores were significant indicators of either measure of self-esteem. The 20 individual item scores of the two HFDs were regressed on the CSEI and TSC. Moderate size of the figure on the first HFD,  $t(38) = 2.3, p < .05$ , and strong appearance of the figure on the second HFD,  $t(38) = 2.2, p < .05$ , were significant predictors of TSC scores. Strong appearance of the figure on the second HFD was also a significant predictor of CSEI scores  $t(38) = 2.6, p < .05$ . No other single HFD indicators were significant predictors of self-esteem. The nine individual indicators on the HTP were also regressed on the two indicators of self-esteem and no significant HTP predictors were found.

To further test for possible reasons for differences in HFD scores, age, gender, and artistic ability were regressed onto HFD total scores. The three variables combined were found to account for 21.8% of the variance in total HFD scores,  $F(3,35) = 3.25, p < .05$ . However, none of these variables reached significance alone. Similarly, multiple regression analysis revealed that age, gender, and artistic ability accounted for 22.7% of the variance for total HTP scores,  $F(3,35) = 3.34, p < .05$ . However, age was the only significant single predictor,  $t(38) = -2.67, p < .05$  of HTP scores in that increasing age was associated with lower total HTP scores. Age, sex, and artistic ability were not significant predictors of the two measures of self-esteem (CSEI or TSC).

## DISCUSSION

Previous clinical, theoretical, and occasional research evidence has suggested that some indicators of projective drawings may relate to dimensions of psychological health, particularly self-esteem. Despite this, the above research was not able to support this within an undergraduate university population. What did account for variation in participant's HFD and HTP scores was a combination of age, gender, and artistic ability. It should be noted, however, that even though a few significant findings for single indicators were found (essential details present and proper proportion), they should be treated with caution given the small sample size and number of statistical tests conducted. Thus, the findings for the single indicators are likely to be merely the result of random spurious significance.

The above research does indicate that projective drawings should not be used as measures of psychological health (specifically self-esteem) for relatively normal populations such as the one used for the study. However, it may be that among more severely disturbed groups (e.g., clinical populations), the indicators in this study might have been able to make more useful discriminations. Indeed it might be argued that the reason for the nonsignificance of the findings was that only relatively subtle differences in self-esteem were being assessed. It should also be noted that Tharinger and Stark (1990) did find a highly significant correlation between their more impressionistic, holistic ratings of children's HFDs and the CSEI. The above suggests that future research into the ability of projective drawings to screen for psychological health might use populations having a wide range in self-esteem (both clinical and normal groups) or more impressionistic, global ratings rather than the more quantitative total scores used in the above study.

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