Because touching is an important and often studied construct, and there is need for a valid self-report measure of touching behavior, a measure of touching behaviors was developed. Touching behaviors to be reported were: brief touch on the arm or shoulder, handshake, hug, hand holding, kiss on the cheek, and kiss on the lips. Persons identified as targets of touching behavior were: close friend, parent, acquaintance, stranger, spouse, fiancé(e), girlfriend, or boyfriend. Frequency of touch was reported by a group of community adults. Further reliability and validity data were collected using the adult sample and college student samples. Scores on the rating scale were associated with: (1) self-assessment of touching behaviors; (2) family touching history; (3) scores on Heslin's attitude-toward-touch scale; and (4) independent observers' reports of subjects' touching behaviors. The results of the studies suggested that the scale has promise as a self-report measure of touching behavior. (MDE)
A Self-Report Measure of Touching Behavior

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Abstract

A review of the literature shows that touching is an important and often studied construct and that there is a need for a valid self-report measure of touching behavior. This paper describes the development of such a self-report measure of touching behavior. The results of three studies provide evidence of reliability and validity.
Touching has been found to have an impact on a variety of dimensions of human functioning. Several aspects of interpersonal relationships seem to be influenced by touch, including intimacy (e.g. Cooper & Bowles, 1973; Goldman & Fordyce, 1983; Jourard & Friedman, 1970; Kleinke, Meeker & LaFong, 1974; Nguyen, 1976; Tolstedt & Stokes, 1983), quality of interactions (e.g. Aguilera, 1967; Holly, Trower & Chance, 1984), liking (e.g. Boderman, Freed & Kinnucan, 1972; Silverthorne, Micklewright, O'Donnell & Gibson, 1975), perception of the relationships of others (e.g. Kleinke, 1974) and helping behavior (e.g. Goldman & Fordyce, 1983; Kleinke, 1977; Willis & Hamm, 1980). Fisher, Rytting and Heslin (1975) found individuals' mood to be influenced by touching. Several personality characteristics seem to be related to amount of touch, including dominance, assertiveness and warmth (Deethhardt & Hines, 1983; Major & Heslin, 1983), status (Henley 1973; Watson, 1975) and depression (Stein & Sanfilipo, 1985). There has also been interest in the usefulness of touch in therapeutic settings (e.g. Borenzweig, 1984; Clark & Clark, 1984; Frith & Lindsey, 1983; Krieger, 1975; Pattison, 1973).

Given the pervasive influence of touch (Thayer), the assessment of touching is of importance. Some studies have used naturalistic observation of individuals in specific settings to measure touching (e.g. Heslin & Alper, 1983; Watson &
Graves, 1966). While this method gives some information about individuals' touching behavior, it is limited in that the observers have available to them only a small sample of the individuals' touching behavior and in that observation of behavior tends to be a painstaking and error prone procedure.

Willis and Rinck (1983) used a log method to assess touching. The approach focused on reactions to being touched but could be used to assess actual touching behavior as well. Although the log method samples a variety of settings and people with whom the subject comes into contact, this method is quite time consuming for subjects, there is no guarantee that the subjects will come into contact with the variety of people that would give them the opportunity to display a full spectrum of touching behavior, and it is hard for the researcher to quantify the results.

Self-report measures of attitude towards touching and being touched were developed by Anderson and Liebowitz (1978) Deethhard and Hines (1983) and Heslin (1982). Attitude toward touch is an important dimension, but it cannot be assumed to be the same as actual touching behavior. Extensive research has shown that attitudes tend to be only somewhat related to actual behavior (e.g. Azjen & Fishbein, 1977; LaPiere, 1934; Wicker, 1969).

Jourard (1966) measured touching through a self-report measure in which he asked subjects to indicate whether they
had touched and been touched by their mothers, fathers, same-sex friends and opposite-sex friends on various parts of their bodies (such as the head, the calves and the stomach) during the past year. While this measure has some appeal, it also has some short-comings. These short-comings include (a) lack of validation of the measure, (b) questioning subjects only about intimate others, (c) not assessing the frequency of touch (e.g. a subject would give the same response if she had hugged her mother once during a 12 month period or if she had hugged her mother every day), and (d) disregarding type of touch (e.g. a subject would give the same response if he had patted an opposite sex friend on the cheek or if he had kissed her on the lips).

Thus the need for a simple instrument measuring a global touching trait remains unmet. The authors therefore set out to develop and validate a self-report measure of touching behavior.

Heslin and Alper's (1983) taxonomy of touching was used as a guide in developing the authors' measure. The taxonomy specifies different kinds of relationships in which touching occurs and divides touch into levels of intimacy.

Development of the Measure

A grid-type instrument was created with sets of same-sex and opposite-sex target people. The rows of the grid contain the
following same-sex and opposite-sex target people: close friend, parent, acquaintance and stranger. Also, there is a row for spouse, fiance(e), girlfriend or boyfriend. Thus, the grid contains a total of nine target people. The columns of the grid contain the following target behaviors: brief (less than four seconds) touch on the arm or shoulder, handshake, hug, holding the person's hand, kiss on the cheek and kiss on the lips. Subjects were asked to indicate frequency of touch by using an eight item scale on which a "1" indicated no touching and an "8" indicated very frequent touching.

Study 1

Method

Subjects. Twelve male and 15 female subjects participated in the experiment. The subjects' mean age was 32.74, SD=13.80. Subjects were recruited from the community by the experimenters.

Procedure. Instructions to subjects were: "Using the tables below (one for same-sex and one for opposite-sex people), please indicate in which ways you have actually touched each of the target people. Please enter the frequency of each type of touch for each category of person by entering a number from the scale provided below into the appropriate box. Please enter the frequency of touch with respect to the time spent with the person. For example, even if you only see your mother twice a year, if you very
frequently hug her while you are together, you would probably place a "7" or "8" (indicating high frequency) into the appropriate box." As there were nine target people, the minimum score that could be obtained was 54, while the maximum score that could be obtained was 432. Subjects were provided with an eight-point scale with response possibilities ranging from "1" (never), "2" (rarely) to "8" (very frequently). The scale points "3" to "7" had no verbal anchor.

After completing the grid, subjects were asked to respond to two sets of validation items. Two items intended to assess subjects' perception of their overall touching behavior were "How much physical contact with others do you generally seek?" and "How touchy-feely do you consider yourself to be?" Subjects responded to these items using a seven-point scale.

It seems likely that the inclination of individuals to touch others is in part determined by the frequency of touch in the families in which they were raised. Three items were intended to assess family touching history: (a) "How often were you cuddled by significant others (parents, siblings, etc.) when you were a child?" (b) "How often did you seek to cuddle significant others as a child?" (c) "How would you classify your family in general terms of physical affection (hugging, kissing, etc.) during your childhood?" Subjects responded to these items using a seven-point
scale.

**Results**

**Reliability.** Internal consistency, as measured by Cronbach's Alpha, was .96 for the authors' total scale.

**Descriptive Data.** The subjects had a mean total touching scale score of 183.60, SD=64.58. Product moment correlation coefficients showed that there was no significant correlation between scale scores and either age or sex.

**Validity Data.** The internal consistency of the two sets of validity questions was tested using Cronbach's Alpha. The two items measuring subjects' perception of their overall touching behavior were highly related (.81) as were the three items measuring subjects' family history of touching (.88).

Product-moment correlation coefficients showed that subjects who saw themselves high on overall touching scored significantly higher on the touching scale, \( r(23)=.80, p<.0001 \). Product-moment correlation coefficients also showed that subjects who rated themselves as high on family history of touching had significantly higher scores on the touching scale, \( r(23)=.64, p<.0001 \).

**Study 2**

The purpose of this study was to replicate the internal consistency measurement of the scale and to gather
further validation data. The association between a scale measuring attitudes toward touching (developed by Heslin, 1982) and the authors' touching scale was assessed. As attitude toward touching and actual touching are related but not identical theoretical constructs, one would expect a moderate association between a subject's attitude toward touching and actual touching behavior.

Method

Subjects. Five male and 10 female college students participated. The subjects' mean age was 27.86, SD=11.27.

Procedure. Subjects were asked to complete the authors' touching scale and were also asked to complete Heslin's (1982) attitude-toward-touching scale. Heslin's scale has 24 items that assess subjects' attitude toward touching and being touched in various ways by others.

Results

Internal consistency, as measured by Cronbach's Alpha, was .91 for the touching scale. The subjects had a mean touching scale score of 184.93, SD=43.91.

Product-moment correlation coefficients showed that there was no significant correlation between touching scale scores and either age or sex.

Product moment correlation coefficients showed that subjects who scored higher on the attitude-toward-touching scale (i.e. showed a more positive attitude toward touching) scored significantly higher on the touching
scale, $r(14)=.46$, $p<.04$.

Study 3

The purpose of this study was to examine the validity of the authors' measure by testing whether an individual's self-reported touching behavior corresponds to the observations by others of the individual's touching behaviors.

Method

Subjects. Eight male and 15 female college students participated. The subjects' mean age was 25.68, SD=9.98.

Procedure. Subjects were asked to complete the authors' touching measure. All subjects were also asked to select three of the following target people: their mother; their father; their spouse, fiance(e), girlfriend or boyfriend; a female friend; or a male friend. The three target people were asked by the subject to fill out a questionnaire assessing the subject's touching behavior. The target people rated the subjects on the same six behaviors that the subjects had rated themselves on when completing the self-report measure of touching. Two of the target people reported only on the subject's behavior towards themselves; the third target person reported also on the subject's touching of same and opposite-sex strangers and acquaintances. The rationale
for this was that any of the five target people would have had the chance to observe the subject's behavior towards many strangers and acquaintances.

Results

Internal consistency, as measured by Cronbach's Alpha was .94 for the total touching-scale score. The subjects had a mean touching scale score of 199, SD=47.82.

Product moment correlation coefficients showed that there was no significant correlation between scores on the touching scale and age or gender.

Since subjects had peer rating scores for only seven of the nine target people, the mean rating for these seven was used to compute the peer rating scores. Product-moment correlation coefficients showed that subjects who had a high self-report touching score tended to be rated as significantly higher on frequency of touching by others, $r(16)=.70, \ p<.001$.

Discussion

The authors developed a self-report measure of touching behavior. Three studies provided evidence that the scale has good internal consistency. The high inter-correlation between items on the touching scale, viewed in light of the items being chosen on a theoretical basis and viewed in light of the items sampling a wide variety of touching behaviors, is evidence that frequency of touching others
may be a general "trait" that can meaningfully be measured.

Four types of validity data were collected. First, as one would expect of a valid measure of touching behavior, scores on the authors' scale were associated with subjects' overall rating of their touching behavior. Second, a significant association was found between subjects' touching scale scores and their family touching history. Third, the moderate correlation between the authors' measure of touching behavior and Heslin's attitude-toward-touch scale is of the magnitude one would expect between two related but distinct constructs. Fourth, individuals' touching scale scores were highly correlated with independent ratings of the individuals' touching behaviors.

In prior studies touching of others has been found to be an important construct. The results of the present studies suggest that the authors' scale has promise as a self-report measure of this construct.
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