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# TOUCH AVOIDANCE AND EATING DISORDERS: A RELATIONAL STUDY

A Thesis Proposal

Presented to the

Department of Communication

and the

Faculty of the Graduate College

University of Nebraska

In Partial Fulfillment of the Requirements for the Degree Master of Arts University of Nebraska at Omaha

> by Christine L. North April, 1991

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# THESIS ACCEPTANCE

Acceptance for the faculty of the Graduate College, University of Nebraska, in partial fulfillment of the requirements for the degree Master of Arts, University of Nebraska at Omaha.

Committee

Department Name snica

Chairman 9 4-11-

Date

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# Table of Contents

Acknowlegements			i
I.	Abstra	ct	1
II.	Introd	uction	2
III.	Litera	ture Review	4
IV.	Method	ology	16
v.	Result	S	22
VI.	Discus	sion	24
Append	dix A:	Same Sex Touching Scale	27
Append	dix B:	Touch Avoidance Measure	30
Append	dix C:	Questionnaire	33
Append	dix D:	Non-clinical Demographics	38
Refer	ences		40

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i

#### Abstract

This relational study had therapists from an eating disorder program distribute a touch avoidance questionnaire to patients currently in treatment for an eating disorder. This study looked at touch avoidance among three groups: subjects with an eating disorder and non-sexual abuse background, subjects with an eating disorder and sexual abuse background, and a control group. The questionnaire consisted of the 20 question Same-Sex Touching Scale (SSTS) (Larsen & LeRoux, 1984) and the Touch Avoidance Measure (TAM) (Andersen & Leibowitz, 1978). T-tests revealed a significant value of -2.19 on the TAM between eating disorder and eating disorder/sexual abuse, a score of 3.66 between eating disorder/sexual abuse and control on the TAM, and a score between the same groups of 2.05 on the combined questionnaire. Results indicate that eating disorder individuals are no more touch avoidant than the control group and that eating disorder/sexual abuse background are more touch avoidant than both non-abused eating disorder individuals and the control group.

#### I. Introduction

Touch. What is it? Is it important? Touch may, in fact, be the most immediate form of communication that we as humans utilize in communicating with others. Steven Thayer (1986a) states that "above all other communicative behaviors, touch is the most immediate, most intimate, and most commanding because it is so closely tied to identity, animal survival roots, and cultural signs of sex, status, and aggression" (p. 11).

Human beings need touch in order to survive. It is an integral part of our lives as discovered by Spitz (1945) in his study with infants in an orphanage. Those infants who received almost no tactile stimulation had a higher mortality rate than those who did receive tactile stimulation from the caregivers.

The research on touch as a construct is relatively recent, as recent as the 1940's. The area is gaining increasing interest from researchers and scholars alike. But there is still more to be learned about this area of communication.

A pertinent question might be how touch is a part of our modern society. Do different populations, such as individuals with mental illness or other disorder, react differently to touch? Are men or women more likely to touch? How can touch be used in communicating with others? Several of the questions have been asked by researchers, and several have not.

This study is an attempt to examine an unexplored arena in touch research. More specifically, this study will examine touch attitudes among a very specific group of people in today's society. There is no way that one study can provide all the unknown information, but this may help place a small piece in the massive puzzle of touch communication.

## II. Literature Review

Touch as a construct has been studied as far back as the mid 1940's. Steven Thayer (1986b) reports that there are three characteristics that make touch unique as a communication quality. The first of these characteristics is that touch is intimately connected with our sense of self. Humans establish boundaries by contact and separation; contact with ourselves and with others, and contact between ourselves and objects help people define physical, social, and emotional boundaries of their identity. The second characteristic is related to the biological ties that humans have to touch. These ties are evident at birth and throughout early childhood. And the third characteristic is that touch is surrounded by strong cultural, subcultural, and religious norms, especially as these norms relate to sex, aggression, dominance, and power.

Touch is seen as "the most carefully guarded and monitored of all social behaviors" (Thayer, 1986a, p. 13). Touching another person is an action that calls for an immediate response from the person being touched. Touch communicates things such as a special intimacy, caring, threat, or power. Such a simple action as a touch on the shoulder can mean a variety of things given the context in which the action occurs (Thayer, 1986a). Nguyen, Heslin, and Nguyen (1975) found that, overall, touch is pleasant and

conveys warmth and love. But different types of touch do mean different things. Strokes generally communicate warmth or sexual desire, pats indicate playfulness and friendship, and squeezes and brushes tend to be somewhat ambiguous in their meanings.

Because of the wide range of possible interpretations, touch is carefully monitored by all people, but especially in the American culture where touch is not as much a part of communication as it is in Arab, Jewish, Eastern European, and Mediterranean cultures (Thayer, 1986a; Andersen & Leibowitz, 1978; Jourard, 1968). Hall (1963) conducted a study involving "contact" versus "noncontact" cultures. He found that Americans touch less than do Mediterraneans, especially the men. He also discovered that Far Eastern cultures engage in even less touching behavior than do Americans.

The beginnings of touch research are a mixture of medical and psychological studies. The first clinical studies on touch were done by Spitz in 1945. Spitz studied institutionalized infants. These infants were only rarely touched by their nurses, and when they were touched, the encounter was brief. He noted that these infants were overcome by physical and emotional despair, and that these children had an extraordinarily high mortality rate. He concluded that touch was biologically necessary for the

growth and development of children. Numerous other studies followed.

In 1958 Harlow conducted his famous study on maternal deprivation in rhesus monkeys. The monkeys, when afraid or stressed, ran to surrogate "mothers" of terry cloth or even wire. Harlow determined that the monkeys were seeking some form of comfort from the contact. Again, it was determined that touch was as biologically necessary as food for survival.

Touch has also been studied in terms of psychological well-being and personality traits. It has been found that touch is related to general well-being and psychological adjustment (Jourard, 1966; Silverman, Pressman, & Bartel, 1973). Silverman, et al. (1973) found that people with higher self-esteem were more capable of communicating positive and loving emotions by touch than were people with low self-esteem. They also reported that subjects with higher self-esteem engaged in more tactile communication than did those subjects with low self-esteem.

Jourard (1966) found that people who view themselves as attractive were touched more than those who perceived themselves as being less attractive. Two other studies also found that individuals who were satisfied with their physical appearance and characteristics were more open to touching and were more willing to touch than those who were less satisfied with their bodies. This satisfaction, or lack thereof, may have some impact on self-esteem, as people who have a positive image of themselves tend to have higher levels of self-esteem (Deethart & Hines, 1983). Deethart and Hines (1983) go on to conclude that "tactile communication is an intrinsic element in personality development and expressive of positive body image, callousness, dominance, self-esteem, low anxiety, ego strength, low persona, or low guilt proneness" (p. 147).

Other personality characteristics related to touch communication include shyness, interpersonal relationships, and self-disclosure. Fromme, Jaynes, Taylor, Hanold, Daniell, Rountree & Fromme (1989) discuss the inverse relationship between touch comfort and shyness. They concluded that higher levels of touch comfort are associated with effective interpersonal skills, assertiveness, and an effective self-presentation to others. Such aspects of interpersonal relationships as intimacy, quality of interaction, liking, and helping behavior have also been found to be associated with touch (Schutte, Malouff, & Adams, 1988).

Studies have noted that touch influences and tends to increase self-disclosure. Jourard and Rubin (1968) conducted a study in which they found a low, but significant correlation between touching and self-disclosure. It has also been said the increased self-disclosure is one of the

three general influences of touching behavior (Andersen, Andersen, & Lustig, 1987).

Andersen and Leibowitz (1978) conducted a study on touch avoidance. Touch avoidance is defined as

> a trait or individual difference measure of a person's attitude toward touch. Touch avoidance is classified as a communication predisposition, one of a set of constructs that explains and predicts communication attitudes and behaviors. Touch avoidance measures a person's attitude toward touching and being touched along a comfort/discomfort or like/dislike dimension (Andersen, Andersen, & Lustig, 1987, p. 90).

Their results also support the idea that touch is related to general well-being and adjustment. The results of their study showed that there is a positive correlation between touch avoidance and communication apprehension. Communication apprehension is a personality trait that is known to be related to many interaction deficiencies (Jones & Yarbrough, 1985).

Fromme, et al. (1989) discuss a number of possible reasons for touch avoidance. Among these reasons are childhood experiences of violent touch, viewing touch as reflecting status differences or reflecting homosexual interest, and requiring time in a prolonged relationship before becoming comfortable with touch.

The majority of research on touch avoidance has been

done in the area of gender differences in touch avoidance. But despite the large amount of research in this area, the literature fails to provide a consistent answer to the question of who is more touch avoidant (Andersen, Andersen, & Lustig, 1987). Andersen and Leibowitz (1978) found in their study that women are more touch avoidant of people of the opposite sex than are males, while males show higher levels of touch avoidance for same-sex individuals than do females. These results are supported by Silverman, et al. (1973). Andersen, Andersen, and Lustig (1987) tested touch avoidance of both males and females in 40 different college populations. They found that in 39 out of 40 schools, opposite-sex touch avoidance was higher for females than for The one school that did not follow this trend was males. not significantly different. Yet another study reports that women are apprehensive and unenthusiastic about touches from strangers and have a greater concern about being touched by This finding suggests that there a stranger than do men. is greater opposite-sex touch avoidance among women, especially if the other person is a stranger (Andersen, Andersen, & Lustig, 1987).

In general, though, it seems that females are more comfortable with touch. Scores from the Touch Test (Fromme, et al., 1989), the Same-Sex Touching Scale (Larsen & LeRoux, 1984), and the Touch Avoidance Measure (Andersen &

Leibowitz, 1978) all reported females as more comfortable with touch as a whole than males. One explanation for this difference is that females are socialized to be more emotionally expressive, and as a result, may be socialized to touch more than men (Larsen & LeRoux, 1984). There have been studies that show that mothers are more affectionate toward their girl children. Weaned later, female children are shown more tactile expressions than are male children (Andersen & Leibowitz, 1978). Cultural learning may account for the differences in touching behavior in males and females.

Other studies have looked at the sexual meanings that are associated with touch and how these meanings differ between men and women. For men, touch can indicate sexual desire, pleasantness, warmth/love, and playfulness, but for women, the more touch conveys meanings of sexual desire, the less the same touch conveys warmth/love, playfulness, and pleasantness. Interestingly, these definitions change for women after they are married. They view sexual touch much more positively than unmarried women (Heslin, Nguyen, & Nguyen, 1983). Opposite-sex touch is often perceived as sexual, especially for females (Andersen, Andersen, & Lustig, 1987). And this perception by females is even stronger when touched by strange males. Heslin, et al. (1983) speculate that women's concern about being touched by

strangers when taken together with women's concern about their bodies when touched may indicate that they view themselves as more vulnerable than men. In a culture that "objectifies women's bodies and tolerates violence against women, touch by strangers may be dangerous. And it is possible that a history of sexual abuse in the women's background may intensify such a belief. Andersen, Andersen, and Lustig (1987) argue that this is an area of touch that needs to be researched further.

All of the studies on touch have been conducted using basically three different approaches: self-report, observation of natural or arranged situations, and controlled manipulations in a field or laboratory setting. The self-report type of research is best exemplified by Jourard's (1966) study measuring body accessibility. Jourard had his subjects fill out a questionnaire about who touches whom and where on the body the touch occurs. From this study, numerous other studies were conducted that also used self-report (i.e., Nguyen, Heslin, & Nguyen, 1975; Willis & Rinck, 1973). These studies have used self-report to ask about touch as a dependent variable, about interpretations of touch, and about matters that are too personal or private to research in other ways (Thayer, 1986a).

Observational studies were begun with the observation

by nurses that their patients responded to touch. From here more elaborate and extensive observational studies of touch were conducted. Experimental studies on touch have also In these types of studies, an experimental been done. situation is created to measure the construct of touch. One of the most famous of the experimental studies on touch is that done by Fisher, Rytting, & Heslin (1976). The experimenters had some subjects receive a casual touch by a librarian and other subjects not receive the touch. They found that a fleeting, casual touch was able to influence the attitudes and feelings between complete strangers. Further information on these experimental types can be found in Thayer's (1986a) article on the history and strategy of touch.

As mentioned, touch seems to have an important impact on the actions and adjustment of human beings. Studies to this point have primarily focused on the "normal" and "healthy" individual. Thayer (1986a) reports that studies have been done that look at gender differences, cultural differences, and generation differences in touch. He claims that further studies are needed in the area of touch, and that there need to be studies that examine touch among and between different age groups, psychiatric and physical disorders, and disabilities in order to increase understanding of the role of touch in the lives of these

different groups of people.

One group of individuals that could be examined is people with eating disorders. Looking at touch avoidance in these individuals allows a closer look at touch between genders as 95% to 97% of people with eating disorders are estimated to be women. Eating disorders are also considered to be both physical and psychological in nature.

There are two primary types of eating disorders: anorexia nervosa and bulimia. Anorexia is the selfstarvation by an individual. The person has an extreme fear of gaining weight, refusal to maintain body weight over a minimal normal weight for age and height, and a distorted body image. Bulimia is characterized by episodes of binge eating followed by self-induced vomiting or other means of purging the body of food eaten. Like anorexics, bulimics have a severe fear of gaining weight and suffer from a distorted body image.

As stated by Garner and Garfinkel (1985), "There is considerable heterogeneity within these groups of patients. Subtyping patients based exclusively upon these behavioral weight-related distinctions may be of little value" (pp. 2-3). Since the two disorders are relatively similar in their underlying causes and clinical manifestations, they will be referred to under the general heading of eating disorders (Scott, 1988; DSM III-R, 1987). People with eating disorders tend to be perfectionistic, obsessive, intelligent, well-behaved, and introverted (Garner & Garfinkel, 1985; Scott, 1988). They suffer from low self-esteem, negative self-worth, shyness or timidity, negative self-image, and lack of assertiveness (Holleran, Pascale, & Fraley, 1988). These individuals also tend to have inadequate coping skills for dealing with stressful life events. Like alcohol or drugs, eating disorders are a coping mechanism for the individuals who suffer from the problem (Scott, 1988). There is often discord within the families of those who have an eating disorder. The parents tend to be over-protective and often undermine their child's attempts to be assertive and independent (Scott, 1988).

This introversion and continual undermining of the child may lead to withdrawal. People with eating disorders are often unable to express their emotions, positive or negative, and take their emotions out by either binging or restricting food intake (Garner & Garfinkel, 1985).

Although there is no literature directly related to touch and eating disorders, it seems likely that these individuals may indeed be touch avoidant. These individuals also suffer from depression and low self-esteem (Haskew & Adams, 1989). It might be inferred from Jourard (1966) and Silverman, et al. (1973) that people with eating disorders are less likely to be touched or to touch based on their

dissatisfaction with their appearance and their low selfesteem partially related to their appearance.

The present study is a continuation of those studies that have been done on touch and how different people and groups deal with touch. This study will attempt to look at the relationship between touch avoidance and people with eating disorders. The main research question to be answered by this study is: Are people with eating disorders more touch avoidant than those without eating disorders?

1

# III. Methodology

There are three basic techniques that have been used in researching touch. These techniques include self-report, observational study, and experimental study. Further explanation of these techniques can be found in Thayer's (1986a) article on the history and strategies of touch research.

#### Subjects

The sample of subjects was chosen from a patient population with eating disorders in the Eating Disorders Program at the University of Nebraska Medical Center. These individuals were in in-patient or out-patient treatment. Two groups of patients were used. The first group of patients are those who had been diagnosed with an eating disorder and have no sexual abuse background. The second group were made up of those individuals who had been diagnosed with an eating disorder and had a sexual abuse background. There were total of 15 subjects in each of the clinical groups.

Haskew and Adams (1989) report that many anorexics and bulimics have experienced some form of sexual abuse in their past. They report estimates that one in four girls and one in seven boys experience sexual abuse before the age of 18. This experience may make an individual more touch avoidant than someone without a sexual abuse background. Therefore, it seems important to control for this possible variable in touch avoidance in people with eating disorders.

A third group of subjects was used as a control group, N=15. These subjects were a convenience sample taken from the undergraduate population at the University of Nebraska at Omaha.

Although seemingly a small sample size, it is sufficient to determine differences between the groups. According to Natrelia (1973), in order to detect a standardized difference of 1 with a level of significance equal to .05 and a statistical test power equal to 90%, one needs a sample size of at least 14 per group.

#### <u>Measure</u>

Because of confidentiality, it was not feasible to be present in the treatment environment to do an observational study or experimental study. Therefore, self-reports were used to determine touch avoidance in these individuals.

There have been several self-report scales devised to measure touch (Andersen & Leibowitz, 1978; Larsen & LeRoux, 1984; Fromme, et al., 1989). Two scales will be used in this study.

The first of these scales was created by Andersen and Leibowitz (1978) as a way to measure touch avoidance. The experimenters created a measure that has two different subscales. The first of these sub-scales, Touch Avoidance Measure 1 (TAM 1), is related to touch avoidance of same sex individuals. This sub-scale consists of 10 items. The second sub-scale, TAM 2, is related to touch avoidance in touching individuals of the opposite sex. This sub-scale consists of 8 items.

Andersen and Leibowitz used the measure in three different studies to determine the reliability and validity of the scale. They reported an internal reliability for TAM 1 and TAM 2 ranging from .82 to .88. They go on to report that, after adjustment, the test-retest coefficients were .75 for TAM 1 and .69 for TAM 2. Based on these results, the researchers concluded that this measure has satisfactory reliability.

In a replication of the 1978 study by Andersen and Leibowitz, Andersen, Andersen and Lustig (1987) found similar results and obtained reliability estimates for the TAM of .87.

Further reliability and validity of the TAM were demonstrated by Sorensen (1979) and Sull (1985). Sorensen found that high touch avoiders had significantly more negative attitudes toward an experimental confederate when touched by that confederate. The results showed a positive relationship between the TAM scores and the actual behavior

of the subjects indicating the TAM is valid in the construct it seeks to measure. Similarly, Sull reported that the TAM was a reasonable predictor of interpersonal physical distance. High touch avoiders chose greater interpersonal distances than did low touch avoiders.

A second self-report measure was constructed by Larsen and LeRoux (1984). These experimenters created the Same Sex Touching Scale (SSTS). This scale was also designed to measure attitudes toward touching. The study contained several phases. Larsen and LeRoux found that the scale had relatively consistent construct validity coefficients. The criterion validity is reinforced when looking at the highly negative correlation between the results of the SSTS and the TAM (Larsen & LeRoux, 1984).

Fromme, et al. (1989) developed a touch test in 1986 that replicated previous findings by Andersen and Leibowitz (1978) and Larsen & LeRoux (1984). Their findings that women seem more comfortable with touch than men is consistent with both of the previous studies. The Fromme, et al., scale was closely based on the SSTS and TAM.

Both of these scales present a series of statements and have respondents rate their answers on a Likert scale. The TAM has respondents rate their answers on a scale from 1-5, while the SSTS has respondents rank items on a scale from 1-7. Both scales have fairly consistent reliability and

construct validity. A combination of all items from both the TAM and SSTS was incorporated into a single questionnaire administered to the subjects.

A demographics questionnaire was also administered to the subjects for the purpose of matching the groups as closely as possible.

# Procedure

Therapists with the Eating Disorders Program at the University of Nebraska Medical Center distributed questionnaires to patients. The therapist, using the clinical history of the patients, determined whether or not a patient has been sexually abused. Completed questionnaires were placed in the appropriate envelope for clinical sample/sexual abuse or clinical sample/non-sexual abuse. Having the therapists distribute the questionnaires ensured patient confidentiality. The therapists were also in a position to deal with any issues that may have arisen for the patient in the process of filling out the questionnaire.

Once the data was collected, the intent was to match the groups as closely as possible according to age. Heslin, Nguyen, & Nguyen (1983) found that nonmarried college freshmen and sophomores reacted differently to different types of touch and to touch from different individuals than did married individuals. There are also a number of situational variables that affect touch avoidance. Some of these variables include marital status, emotional states, social rules, impression management, and touch requirements in certain professions (Andersen, Andersen, & Lustig, 1987). For this reason, it seems that the groups should be matched according to age so as to not introduce a possibly confounding variable. Another reason for matching the groups according to age is the possible cognitive differences in self-report. And third, as the young women become more sexual in their development, they may react differently to touch. Three age groups were used: 1) high school, ages 15-18; 2) college, ages 19-25; and 3) postcollege, ages 26 and above.

A control group was given the same touch questionnaire and a different demographics questionnaire. The control group was then to be matched as closely as possible to the two eating disorder groups.

Due to a limited number of subjects, an identical matching of the groups on all demographic dimensions was not feasible. Demographic information on the three groups will be discussed in the results section of the study.

Responses to the questionnaires were calculated for each of the three groups.

## V. Results

The experimental groups were very similar in age and marital status. The control group differed only slightly, with there being several more individuals in the 19-25 years of age category. Complete demographic information can be found in Table 1. The groups are similar enough that this difference should not greatly affect the results of this study.

> Age and marital demographics for both Eating Disorder/Non-abuse background, Eating Disorder/ Abuse background, and Control Groups; each group

Table 1:

N	=15.		
	Eating Disorder/ Non-Abuse	Eating Disorder/ Abuse	Control
<u>AGE</u> 15-18 Yrs.	4	4	4
19-25 Yrs.	4	4	10
26 or Over	6	7	1
Missing inf	o. 1	1	0
<u>Marital Sta</u> Married	<u>tus</u> 3	2	2
Divorced	1	2	0
Single	10	11	13
Missing inf	o. 1	0	0

A t-test using separate variance estimate was done between each of the three groups for the original 38-item questionnaire, for the SSTS, and for the TAM. The collapsing of scores in this study is consistent with the previous studies using these tests. A score of -2.19,  $p \leq .05$ , was found between the eating disorder/non-abuse background and eating disorder/abuse background groups on the TAM. A score of 2.05,  $p \leq .05$ , was found between the eating disorder/abuse background and control groups on the combined questionnaire, and a score of 3.66,  $p \leq .001$ , was found between the same groups on the TAM. All other scores were not significant. Table 2 shows all t-scores for all groups and scales.

TABLE 2: T-test scores for the SSTS, TAM, and both scales combined for Eating Disorder: non-abuse background, Eating Disorder: Abuse background and Control groups.

	SSTS	TAM	Both
Eating Disorder (N=15) & Eating Disorder, Abused (N=15)	-1.23	-2.19*	-1.75
Eating Disorder (N=15) & Control (N=15)	-0.41	0.89	0.12
Eating Disorder, Abused (N=15) & Control (N=15)	0.77	3.66**	2.05*

\*Denotes Statistical Significance at p  $\leq$  .05 \*\* Denotes Statistical Significance at p  $\leq$  .001

## VI. Discussion

#### Discussion of Results

The results seem to indicate that there is not any significance between the level of touch avoidance in individuals with eating disorders and the control group used in this study. Looking at the SSTS, the TAM and both tests combined showed virtually no difference between these two groups.

The significant findings were between the eating disorder/abuse background and the eating disorder/non-abuse background and between the eating disorder/abuse background and the control group. There was a significant score of -2.19 on the TAM between the two eating disorder groups and significant scores of 3.66 on the TAM and 2.05 on both scales combined between the abused group and the control. These results show that in this study it is the eating disorder/sexual abuse subjects that are most touch avoidant. And because there is no significant difference between the eating disorder/non-sexual abuse and the control, it can be inferred that it is the sexual abuse background that accounts for the difference in touch avoidance.

Of the three different scales analyzed, only the TAM and the combined questionnaire showed any significant results. All scores for all groups on the SSTS were not significant.

## Limitations and Areas for Further Study

Like all studies, this one has some limitations. One limitation was the inability to exactly match all three groups on age and marital demographics. The large number of control subjects between the ages of 19 and 25 could have been a confounding variable. While there is no evidence to suggest this would have an effect on the results, future studies may want to more closely match the groups under study.

Another limitation to this study is the use of selfreport to measure touch avoidance. Each individual may interpret the statements and questions differently. Also, subjects may want to appear as "normal" as possible and may answer the questionnaire in a way they think represents "normal." This is especially true of those subjects with eating disorders. According to Siegel, Brisman, and Weinshel (1988), people with eating disorders are perfectionistic and people pleasers. These individuals may respond to the questionnaire so as to try to please the investigator and appear compliant.

Each of these limitations may want to be taken into account by future investigators in this area. Future studies may want to examine touch avoidance in other clinical populations, further study in the area of touch avoidance and eating disorders, and further study of touch abuse in sexually abused individuals. Other studies may also look at touch avoidance in individuals with eating disorders using different scales or methods as only the TAM and the combined questionnaire in this study showed any significant results. Appendix A

# Same Sex Touching Scale

1.	Touch is important in my communication with others of my same sex.		2	3	4	5	6	7
2.	I appreciate a hug from a person of my sex when I need comforting.	1	2	3	4	5	6	7
3.	I enjoy persons of my sex who are comfortal with touching.			3	4	5	6	7
4.	I enjoy touching some persons of the same s			3	4	5	6	7
5.	I would feel comfortable embracing a close friend of the same sex while fully clothed.		2	3	4	5	6	7
6.	I sometimes enjoy the physical contact whilh hugging persons of the same sex.	le 1	2	3	4	5	6	7
7.	I am comfortable putting my arm around the shoulders of persons of my sex.	1	2	3	4	5	6	7
8.	I sometimes enjoy hugging friends of the same sex.	1	2	3	4	5	6	7
9.	I sometimes like persons of the same sex putting an arm around my shoulders.	1	2	3	4	5	6	7
10.	I enjoy being touched by someone of the sames.		2	3	4	5	6	7
11.	Physical expression of affection between pe sons of the same sex is healthy.			3	4	5	6	7
12.	I am comfortable giving a massage to someor of my sex.		2	3	4	5	6	7
13.	When I an tense, I would enjoy receiving a neck and shoulder massage from a person of							
14.	the same sex. I would rather avoid touching persons of the same sex.	ne			4 4			
15.	I feel uncomfortable touching in a relation ship with someone of the same sex.		2	3	4	5	6	7

16.	Touching between persons of the same sex should be limited to a handshake only. 12	3	4	5	6	7
17.	I like the feeling of warmth I sometimes get while embracing close friends of the same sex. 1 2	3	4	5	6	7
18.	When I have a headache, having someone of the same sex massage my neck and shoulders feels good. 12	3	4	5	6	7
19.	I sometimes hug members of my sex when I feel close to them. 12	3	4	5	6	7
20.	It pleases me to see persons of the same sex hug each other in greeting. 1 2	3	4	5	6	7

Appendix B

## Touch Avoidance Measure

**Directions:** This instrument is composed of 18 statements concerning feelings about touching other people and being touched. Please indicate the degree to which each statement applies to you by circling whether you (1) Strongly Agree, (2) Agree, (3) Are Undecided (4) Disagree, or (5) Strongly Disagree with each statement. While some of these statements may seem repetitious, take your time and try to be as honest as possible.

1.	A hug from a same-sex friend is a true sign of friendship.		2	3	4	5
2.	Opposite sex friends enjoy it when I touch them.	1	2	3	4	5
3.	I often put my arm around friends of the sa			3	4	5
4.	When I see two people of the same sex hug- ging, it revolts me.	1	2	3	4	5
5.	I like it when members of the opposite sex touch me.	1	2	3	4	5
6.	People shouldn't be so uptight about touchi persons of the same sex.			3	4	5
7.	I think it is vulgar when members of the opposite sex touch me.	1	2	3	4	5
8.	When a member of the opposite sex touches me, I find unpleasant.	1	2	3	4	5
9.	I wish I were free to show emotions by touc ing members of the opposite sex.			3	4	5
10.	I'd enjoy giving a massage to an opposite s friend.			3	4	5
11.	I'd enjoy kissing persons of the same sex.	1	2	3	4	5
12.	I like to touch friends that are the same s as I am.	;e> 1	2 2	3	4	5
13.	Touching a friend of the same sex does not make me uncomfortable.	1	2	3	4	5

14.	I find it enjoyable when my date and I embrace.	1	2	3	4	5
15.	I enjoy getting a backrub from a member of the opposite sex.	1	2	3	4	5
16.	I dislike kissing relatives of the same sex		2	3	4	5
17.	Intimate touching with members of the oppose sex is pleasurable.		се 2	3	4	5
18.	I find it difficult to be touched by member of my own sex.		2	3	4	5

Appendix C

**Directions:** This instrument is composed of 38 statements concerning feelings about touching other people and being touched. Please indicate the degree to which each statement applies to you by circling whether you (1) Very Strongly Agree, (2) Strongly Agree, (3) Agree (4) Are Undecided, (5) Disagree, (6) Strongly Disagree, or (7) Very Strongly Disagree with each statement. While some of these statements may seem repetitious, take your time and try to be as honest as possible.

Touch is important in my communication with 1. 1 2 3 4 5 6 7 others of my same sex. 2. I appreciate a hug from a person of my sex when I need comforting. 1234567 I enjoy persons of my sex who are comfortable 3. with touching. 1234567 I enjoy touching some persons of the same sex. 4. 1234567 I would feel comfortable embracing a close 5. friend of the same sex while fully clothed. 1 2 3 4 5 6 7 I sometimes enjoy the physical contact while 6. hugging persons of the same sex. 1 2 3 4 5 6 7 I am comfortable putting my arm around the 7. shoulders of persons of my sex. 1234567 8. I sometimes enjoy hugging friends of the 1 2 3 4 5 6 7 same sex. 9. I sometimes like persons of the same sex putting an arm around my shoulders. 1 2 3 4 5 6 7 10. I enjoy being touched by someone of the same 1 2 3 4 5 6 7 sex. 11. Physical expression of affection between per-1 2 3 4 5 6 7 sons of the same sex is healthy. 12. I am comfortable giving a massage to someone 1 2 3 4 5 6 7 of my sex.

13. When I an tense, I would enjoy receiving a neck and shoulder massage from a person of the same sex. 1 2 3 4 5 6	7
14. I would rather avoid touching persons of the same sex. 1 2 3 4 5 6	7
15. I feel uncomfortable touching in a relation- ship with someone of the same sex. 1 2 3 4 5 6	7
16. Touching between persons of the same sex should be limited to a handshake only. 123456	7
17. I like the feeling of warmth I sometimes get while embracing close friends of the same sex. 1 2 3 4 5 6	7
18. When I have a headache, having someone of the same sex massage my neck and shoulders feels good. 1 2 3 4 5 6	7
19. I sometimes hug members of my sex when I feel close to them. 1 2 3 4 5 6	7
20. It pleases me to see persons of the same sex hug each other in greeting. 1 2 3 4 5 6	7
21. A hug from a same-sex friend is a true sign of friendship. 1 2 3 4 5 6	7
22. Opposite sex friends enjoy it when I touch them. 123456	
	7
23. I often put my arm around friends of the same sex. 1 2 3 4 5 6	
23. I often put my arm around friends of the same	7
<ul> <li>23. I often put my arm around friends of the same sex.</li> <li>24. When I see two people of the same sex hug-</li> </ul>	7 7
<ul> <li>23. I often put my arm around friends of the same sex. 1 2 3 4 5 6</li> <li>24. When I see two people of the same sex hugging, it revolts me. 1 2 3 4 5 6</li> <li>25. I like it when members of the opposite sex</li> </ul>	7 7 7

28.	When a member of the opposite sex touches me, I find it unpleasant.	1	2	3	4	5	6	7
29.	I wish I were free to show emotions by touc ing members of the opposite sex.			3	4	5	6	<sup>.</sup> 7
30.	I'd enjoy giving a massage to an opposite s friend.			3	4	5	6	7
31.	I'd enjoy kissing persons of the same sex.	1	2	3	4	5	6	7
32.	I like to touch friends that are the same s as I am.			3	4	5	6	7
33.	Touching a friend of the same sex does not make me uncomfortable.	1	2	3	4	5	6	7
34.	I find it enjoyable when my date and I embrace.	1	2	3	4	5	6	7
35.	I enjoy getting a backrub from a member of the opposite sex.	1	2	3	4	5	6	7
36.	I dislike kissing relatives of the same set		2	3	4	5	6	7
37.	Intimate touching with members of the oppose sex is pleasurable.	sit 1	te 2	3	4	5	6	7
38.	I find it difficult to be touched by member of my own sex.		2	3	4	5	6	7

SEX:	Male	Female	HEIGHT:
AGE:	15-18 yrs.		WEIGHT:
	19-25 yrs.		
	26 or over		
MARITA	AL STATUS:	Married	Divorced
	Separ	ated	Single, never married
Do γοι	ı have any	children? Yes	No How many?
SOCIO	ECONOMIC ST	ATUS (income level	):
Upper	class	Middle class_	Lower class
EATING	G DISORDER	HISTORY:	
Anorex	cicB	ulimic Anorex	ic/bulimic
How lo	-		et of your disorder?
Have y		eated for your eat	ing disorder before?
		tory of other diso m, depression, dru	rders in your backgroud g addiction)?
Y	′es	No	
If yes	s, please e	xplain:	
alcohc	olism, depr	y being treated fo ession, drug addic No	r any disorder (i.e., tion, etc.)?
If yes	s, please e	xplain:	

37

Appendix D

SEX:	Male	Female	Height	
AGE:	15-18 y: 19-25 y:	rs	Weigh	t
	26 or o	ver		
MARIT	AL STATU	S: Married	Divorce	d
		Separated	Single,	Never
marri	ed			
Do yo	u have a	ny children? Yes	No	How
many?		_		
<b>s</b> ocio	ECONOMIC	STATUS (income lev	vel):	
Upper	class	Middle cla	ISS	Lower
class				
Have	you ever	had problems with	any of the fo	llowing?
(Chec	k all th	at apply)		
Anore	xia	_	Bulimia_	
Alcoh	olism		Drug add	iction
Depre	ssion		Personal	ity
			disorder	

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