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AN EVALUATION OF THE RELATIONSHIP BETWEEN PATIENTS' ADULT ATTACHMENT STYLES OF VETERANS AND THEIR LEVEL OF TRUST IN THEIR PHYSICIANS AT A VETERAN HEALTH CARE SYSTEM

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ABSTRACT

Background: Previous research has demonstrated that trust is a crucial construct in both interpersonal relationships in the healthcare setting and adult attachment (Bartholomew and Horowitz, 1991).

Purpose: The purpose of this study was to examine if there is a relationship between adult attachment styles of patients in a large veteran's health care system and level of trust with their physicians.

Method: Using a quantitative correlational design and convenience sampling the participants in outpatient care areas (the Urgent Care and Primary Care Clinics) of the HCS spent about 15- 20 minutes completing two self-report measures: (a) The Relationship Questionnaire (RQ) and (b) The Trust in Physician Scale (TPS) and a demographic questionnaire.

Results: The results demonstrated that secure attachment styles were less trusting, dismissing attachment styles were more trusting, and preoccupied or fearful attachment styles did not show any association with trust totals. Data analysis indicated that there is a relationship between gender and preoccupied attachment scores as well as between race and secure attachment scores in the patients.

Conclusion: Data from this study confirmed that there is a correlation between adult attachment styles and the patient-provider relationship.

Introduction

Numerous factors can influence a patient's health care experience, which can impact the success of the patient-provider relationship whether they are related to the skills of the health care provider or the level of trust of the patient (Baker, Reifsteck, & Mann, 2003). Medical research often addresses patient satisfaction, patient/medical outcome, patient perception, and the patient-provider relationship. Although current literature relates patient outcome to such factors as expectations, attitude, skills and the perceptions of the attitude and behavior of the caregiver (Oei & Green, 2008), one aspect of patient outcomes that lacks study is the relationship between adult attachment and patient perception, and the impact that patient perception has upon the patient-provider relationship.

Recently, the veteran's administration has become a focal point for changes in the treatment of veterans particularly those members who were involved in the recent Iraq and Afghanistan conflicts. The United States military involvement in the Middle East and the changing dynamics of veterans in the health care system have resulted in a unique set of circumstances in the health care field (Salvatore, 2009). For example, while, in Vietnam, soldiers engaged in one tour of duty that typically lasted about twelve months. Tours of duty in the Middle East, however, have recently endured nearly fifteen months with soldiers at risk of being repeatedly redeployed (Salvatore, 2009). Additionally, advances in medical technology have increased soldiers' chances of surviving severe wounds and amputations. This can significantly impact the number of war veterans and the need for effective and efficient veteran healthcare services (Salvatore, 2009).

The authors believe that these changes in patient experience among veterans' demands an increased scrutiny of patient-provider relationships. At the core of patient satisfaction in treatment is the connection and attachment that patients feel toward their physicians. However, there is little research that examines this relationship and the role patient attachment plays in that encounter. Although there is a sound basis for attachment as well as interpersonal relations theory, more research is needed to explore the link between the two. Early attachment studies addressed some ways that attachment has been measured throughout the development of attachment theory (Wallin, 2007). Adult attachment research explores the type of attachment, whether secure or insecure, which an individual forms in adult interpersonal relations (Obegi & Berant, 2009; Sherry, Lyddon & Henson, 2007). According to Bowlby (1973), stressful events can trigger an individual's attachment needs including the stress of combat experiences. These traumatic events and subsequent health care needs may likely elicit attachment requirements in the health care setting. Adult attachment styles, which an individual develops, may affect the ability of that individual to trust (Hardy, 2007; Hayes, 2007). Learning more about patient-provider relationships requires the exploration of not just the caregiver's skills in interacting with the patient to provide a positive outcome, but also the propensity to adequately respond to the caregiver's efforts. The authors believe that the knowledge gained from investigating the differences between patients' reported level of trust in their physician and attachment style can provide health care practitioners with a better understanding of interactions between patients and providers. This insight is a stepping stone to improving the health care process. It is our belief that the findings from our study can help shape health care theory and allow health care providers to develop tools better to understand the health care process and subsequently better serve veterans and similar patients.

Background

Several themes emerge from examining relevant research studies including, adult attachment, patient perception, patient satisfaction and the patient-provider relationship. The literature demonstrated that patient perceptions of their providers and their health care outcome are not just affected by medical knowledge, systems-based practice, & scientific inquiry. Patients are also evaluating their providers' interpersonal integration with them, and the degree to which their health care needs, their needs for trust, and their individual fears are addressed during that interpersonal integration (Coatsworth-Puspoky, Forchuk, & Ward-Griffin, 2006; Houle, Harwood, Watkins, & Baum, 2007; Seaver, Freund, Wright, Tjia, & Frayne, 2008). Both the patient and the provider contribute to the success of the patient-provider relationship, in that patients must overcome fear, lack of trust, or overdependence, while the providers must navigate their emotions to offer a balanced therapeutic approach to caring for the patient (Dowling, 2006). The critical analysis below evaluates some of the research studies in regards to their applicability and limitations.

Adult attachment is a significant theme. Previous research has demonstrated that trust is a crucial construct in both interpersonal relationships in the healthcare setting and adult attachment (Bartholomew and Horowitz, 1991). In recent years, several streams of research have emerged from Bowlby's (1973) and Ainsworth's (1967) attachment theory. Initially, the theory was aimed at explaining child attachment.In later years, adult psychopathology became a research focus and was defined regarding little or minimal positive relationships between children and their caregivers or "attachment figures." According to attachment theory, the long-term effects of early experiences with caregivers are cognitive and affective representations of the self in response to close relationship partners (Sharfe and Bartholomew, 1994). Theoretically, these representations influence a person's expectations, emotions, defenses, and relational behavior in all future relationships. Theory and empirical evidence from longitudinal studies have led researchers to suspect that the effects of attachment in relationships can be seen in the domains of parenting and close peer relationships, including romantic relationships.

Attachment theory describes the type of attachments that individuals experience in infancy and early childhood with their primary care provider and links this relationship to later interpersonal relationships (Bowlby, 1982; Hardy, 2007). Early attachment studies addressed how attachment had been measured and established the concept of attachment security and insecurity, as well as how stress triggers attachment needs. These initial studies evaluated children's attachment to their parents, and not the impact of attachment styles in adult interpersonal relationships (Wallin, 2007). These relationships are usually situation-dependent and confirm self-worth, a sense of connectedness with others, support self-esteem and have the propensity for conflict of opinions and beliefs (Fawcett, 2000). These same dynamics may also be necessary for the patient-physician. In a patient-caregiver relationship, these two individuals and their personality and life experiences most likely impact on the outcome of their interaction. For example, Deeny & McGuigan (1999) have found that nurses can have a therapeutic and educational relationship with their patients. These relationships can imply that there is a mutual goal where both the nurse and the patient work together toward a positive outcome (Baker, Reifsteek, & Mann, 2003; Dowling, 2006).

Trust and vulnerability along with a nurse and patient anxiety were identified as important aspects of nurse-patient relationships (Fawcett, 2000; Schafer & Middleton, 2001). These dynamics give rise to the possibility of a connection between adult attachments and interpersonal relationships in health care settings (Obegi & Berant, 2009; Stockmann, 2005). For many reasons including a severe health-related hardship, feelings of vulnerability and the need for comfort and reassurance can be a significant component of a patient-physician relationship. (Haskard, Williams, diMatteo, Rosenthal, White & Goldstein, 2008; Welch,

2005). These feelings and vulnerability most likely activate an individual's need for attachment to those providing care.

Patient perception is an important part of the research study. Several sources that discuss

this topic address it from different perspectives. Coatsworth-Puspoke, Forchuk, and Ward-Griffin (2006) present various factors that shape clients' experiences and viewpoints in response to the nurse-client relationship in mental health settings. This relationship was defined as a vital tool in mental health nursing and explains that it operates as the foundation on which the client's health enhances and restores back to its optimal level. Two types of relationships were defined; one was mentioned as good due to the nurse's proficiency in interpersonal integration with the client. The other relationship was referred to as negative as a result of the client's perception of negligence and lack of trust by the nurse. Both kinds of relationship consist of three phases, a beginning, middle and an end. The findings of this study underline the therapeutic qualities of the nurse-client relationship and the subsequent improvement of the client's quality of life (Coatsworth-Puspoky, Forchuk, & Ward-Griffin, 2006).

Seaver et al. (2008), conducted a qualitative study of patient perception that sought out to "characterize lesbians' experiences with and expectations of women's healthcare". This study used a focus group method conducted with a total of 22 participants. They performed three focus groups that were separated according to age (i.e. 18–29, 30–50, 50 plus years). The interviews were semi-structured; employing a 27-item protocol compiled by six entities in the Department of Health and Human Services National Centers of Excellence in Women's Health. This was meant to bring out the experiences and preferences of lesbians regarding health care. The sessions were audiotaped and analyzed by five independent reviewers using the constant comparative method, in which data was continuously refined and fed back into the coding and the theme identification process (Seaver et al., 2008). The focus group provided an efficient way to elicit and explore the experiences of lesbians regarding healthcare. However, while focus groups tend to generate a great deal of dialogue, some individuals have reservations about expressing their views publicly (Polit, Beck, & Hungler, 2001). Thus, the focus group method may not be able to explore the experiences of lesbians that are not comfortable with expressing their views in front of a group. This risk does not negate the many themes raised in the study (i.e. assumed sexuality, fear of discrimination, desire for confidentiality and the lack of scientific inquiry), but rather provides an essential foundation for future research.

Houle et al. (2007) conducted a qualitative study using two focus groups consisting of 18 adult female patients and one focus group with five community advocates. The aim of the study was to identify the needs of adult women. The result was intended to be used as a guide for the development of adult women's health to meet their needs and to ensure that the curricula meet the requirement of the Accreditation Council on Graduate Medical Education (ACGME). This accrediting body mandates that graduates satisfy six areas of competence: patient care, medical knowledge, systems-based practice, interpersonal and communication skills, professionalism, and practice-based learning and improvement. The research study implements some triangulation to demonstrate credibility. Although only one researcher collects the information, it was gathered from a diverse population of patients as well as a diverse group of health care advocates. This study was only tested on females in community-based urban clinics due to their diversity (i.e. race, age, economic standing, & culture). Although this study may be more transferable to the general population of women than other studies that do not have such a diverse mix, the sample poses some problems. Participants only came from urban clinics and not from a variety of settings. Also, the patients were not selected through random sampling, but instead through faculty and staff nomination. Although community advocates were solicited

for the opinions and perspectives, the study is not generalizable due to the method of sampling and the small size of the study. Thus, the objectivity and the neutrality of the data cannot be adequately determined, which also puts the dependability in question. In addition to this, there is no evidence of either inquiry audit or stepwise replication techniques in order to evaluate data separately (Houle et al., 2007).

Williams and Jones (2006) used a judgment sample of 10 patients in the United Kingdom who were consulting with primary care nurse practitioners. The researcher conducted and thematically analyzed in-depth interviews. To minimize researcher bias, the information sheets, and consent forms were given to the surgery receptionist who also distributed them to patients with booked appointments. The size of the study was incredibly small. Therefore to improve generalizability, a bigger sample needs to be used (Williams & Jones, 2006).

Patient Satisfaction is another important theme. Many studies have dealt with patient

satisfaction regarding the patient perception of the effectiveness of the health care process of the skills of the health care providers. For example, women emphasize the need for communication and advocacy from their care providers (Houle et al., 2007), while lesbians, in particular, express fears of discrimination that impact their preferences regarding medical interaction (Seaver et al., 2008). One study of patients' perspectives identifies satisfaction with the community hospital's process of care. It also explores the methodological challenges in attempting to determine patient satisfaction (Small et al., 2007). The design studies a sample of 13 patients in the community hospital arm of the RCT, using official documentation from the hospital as well as six staff interviewed to identify assumptions underlying practice. This study is limited regarding generalizability because of the small, qualitative sample size.

Patient-provider relationship is vital to the research study. Deeny and McGuigan (1999)

validate the empirical role that the nurse-patient relationship plays about the diagnosis of cancer. Since both the physical and psychological bearing of this demoralizing occurrence are devastating for the patient's quality of life and distressing to the nurse as well, cultivating traditions where both the patient and the nurse acquire support is crucial. The literature signifies the importance of the approach used when breaking the upsetting news to the patient. The presence of a nurse and the exercise of gradual and slow tactics during that process are essential in attempting to avoid the problems associated with the bad news. These problems may include uncertainty, fear of death, sense of failure and helplessness. Unfortunately, such problems must be addressed and attended to; otherwise, the patient's well-being deteriorates. Through the four phases of the nurse-patient relationship: orientation, identification, exploitation and resolution, the nurse and the patient collectively resolve these problems. Developing and maintaining well established and close relationships are integral to promote both therapeutic and educational outcome that is mutual between the patient and the nurse. The oncology nurse makes sure that the patient is receiving the best available treatment among other disciplinary settings and advocates to other wards and units the unique sets of values required to cope with cancer patient's treatment and the magnitude of the nurse-patient relationship throughout this lengthy course of action.

Dowling (2006) builds on Peplau's concept of a mutual relationship between the nurse and the patient by examining the risk of developing maladaptive coping mechanisms in an "over-involved" relationship. Dowling (2006) states that in interpersonal relations theory both the nurse and the patient attempt to become at ease with each other enough to develop a therapeutic relationship. Both parties should contribute equally

to the therapeutic relationship. However, the severity of a patient's illness may cause him or her to become dependent on the nurse. In addition to this, in times of stress, the nurse may attempt to provide distance in the relationship by using closed communication, which in turn could stifle the patient's individuality. For this reason, Dowling (2006) points out that the nature of nursing may sometimes inhibit the practical application of Peplau's theory. Dowling's (2006) article highlights an important boundary in the clinical practice of Peplau's interpersonal relations theory. Within the theoretical paradigm, nurses strive for mutual respect and trust without developing an excessive emotional attachment that inhibits the nurse from successfully coping with the situation. His article highlights the importance of nurses' awareness to the impact of behavior such as communication, in addition to the value of a third-party evaluation of therapeutic relationships, which Peplau demonstrated with her students (Dowling, 2006).

Method

Procedures

This study was a quantitative correlational design that examined the relationship between adult attachment styles and the level of patients' trust in the patient-physician relationship. Convenience sampling was used to select the participants in outpatient care areas (the Urgent Care and Primary Care Clinics) of the HCS. The participants spent about 15- 20 minutes completing two self-report measures: (a) The Relationship Questionnaire (RQ) and (b) The Trust in Physician Scale (TPS) and a demographic questionnaire. The surveys and a demographic questionnaire were completed while the participants were waiting in the outpatient care areas of the HCS. Data was collected over a three week period, between 7:30 am and 3:00 pm in the outpatient care areas of the HCS. The participants' personal information was not required to do the survey; for this reason, no identifiable information was included.

The independent variables examined in this study were the patients' adult attachment styles, age, race, and gender, while the dependent variable was the patients' level of trust in their physicians. As defined by the TPS, trust was conceptually was an individual's belief in the credibility and reliability of the words and actions of another. Also, the trust took into account the participants' belief that their best interests were taken into consideration. Attachments styles were measured by the RQ, which examines the relationship an adult develops when seeking comfort and safety with patient caregivers (Obegi & Berant, 2009). These attachment styles are defined as secure, preoccupied, fearful and dismissing approaches to adult relationships (Sherry et al. 2007).

The variables from the demographic survey were also examined as to their relationship to attachment styles and trust. The demographics used were: (a) age; (b) gender; and (c) race.

- Participants were required to be U.S. veterans between the ages of 19-89.
- Gender was defined as either male or female.
- The race was classified as American Indian, Asian, Arab, Black, Hispanic, White and other.

Instrumentation

The instruments used included two unmodified self-report measures: Relationship Questionnaire (RQ) and Trust in Physician Scale (TPS). Both instruments were used with the permission of the instruments' authors, Drs. Bartholomew and Anderson, respectively. Demographic data, such as race, age, and gender, was also collected in the study.

The Relationship Questionnaire (RQ) was used to determine which adult attachment style participants expressed. The Relationship Questionnaire was developed in 1991 by Bartholomew and Horowitz and is

composed of four short paragraphs that each describes one of four different adult attachment styles: secure, fearful, preoccupied, and dismissing. In the second section, participants rate how well each paragraph applies to them using a 7-point Likert Scale ranging from 1 (*not at all like me*) to 7 (*very much like me*). The Relationship Questionnaire has been tested on the veteran population (Francis, Kaiser, & Deaver, 2003) as well as post-deployed military members (Escolas, Arata-Maiers, Hildebrandt, Maiers, Mason, & Baker, 2012). The RQ was used to assign the best fitting attachment style to each participant. Although Bartholomew recommends that the scale is used to gather continuous ratings for all four attachment styles, it can also be used categorically to attribute a primary attachment style to participants. As indicated, the RQ consists of four sets of statements, each describing a category or style of attachment and the participants then rate how well each paragraph applies to them personally using a 7-point Likert Scale ranging from 1 (*not at all like me*) to 7 (*very much like me*).
. These include the following descriptions:

- **Secure** - It is relatively easy for me to become emotionally close to others. I am comfortable depending on others and having others depend on me. I do not worry about being alone or having others not accept me.
- **Fearful** - I am somewhat uncomfortable getting close to others. I want emotionally close relationships, but I find it difficult to trust others completely or to depend on them. I sometimes worry that I will be hurt if I allow myself to become too close to others.
- **Preoccupied** - I want to be completely emotionally intimate with others, but I often find that others are reluctant to get as close as I would like. I am uncomfortable being without close relationships, but I sometimes worry that others do not value me as much as I value them.
- **Dismissive** - I am comfortable without close emotional relationships. It is critical to me to feel independent and self-sufficient, and I prefer not to depend on others or have others depend on me.

The Trust in Physician Scale was used to measure patients' trust in their primary health care provider. This scale was developed in 1990 by Drs. Lynda Anderson and Robert Dedrick to measure patients' level of trust with their physicians. The Trust in Physician Scale was tested and validated on the VA population in the original study. Anderson and Dedrick (1990) conducted the research study at a North Carolina VA Medical Center Outpatient Clinic, where they used a sample of 160 male veterans. The construct of trust is represented by a patient's level of confidence that the physician has the patient's best interest at heart and in the patient's belief of how reliable and credible are the words and actions of the physician. The authors of the instrument consider trust to be dualistic, and therefore, both too little and too much are deemed to be negative extremes (Fischer & Corcoran, 1994). The dualistic aspect of the trust construct is necessary for this research study because the attachment measure was evaluated in two dimensions (i.e. high/low avoidance with others, and high/low anxiety within oneself). The researcher could, therefore, examine whether or not different types of insecure attachment styles yield different extremes in levels of trust.

The TBS is an 11-item Likert-Scale self-report measure with responses ranging from 1 (*strongly agree*) to 5 (*strongly disagree*). Items 1, 5, 7, and 11 in the Trust in Physician Scale are reverse scored while the rest are scored as reported. The total score for the instrument is determined by calculating the total of all of the item scores. Lower scores represent less trust in the physician, and higher scores represent a higher level of trust (Fischer & Corcoran, 1994). The TPS (Anderson & Dedrick, 1990) measured the patients' trust in their primary health care providers and physicians. The TPS was tested and validated on the VA population in the original study where they used a sample of 160 male veterans. The instrument measures the construct of trust is represented by

- a patient's level of confidence that the physician has the patient's best interest at heart,
- a patient's belief regarding the reliability and credibility of the words and actions of the medical practitioner.

Trust is dualistic, and for this reason, both too little and too much are considered to be negative aspects of trust (Fischer & Corcoran, 1994). The dual aspect of the attachment measure was evaluated in two dimensions: (a) high/low avoidance with others, and (b) high/low anxiety within oneself. By taking into account the dual aspects of trust, it allows the examination of whether or not different types of insecure attachment styles yield different extremes in levels of trust.

Results

Table 1. Demographic Characteristics of the Study Sample (N=74)

A total of 74 veterans participated in the study. Of those who participated 55 were male, and 19 were female. The majority of the participants were Black (42%); with Whites representing 35%; Hispanics representing 14.%; Asian/Pacific Islanders representing 1% and Other representing 8 %.

Characteri	Number	Percentag
Gender		
Male	55	74
Female	19	26
Race		
Black	31	42
White	26	35
Hispanic	10	14
Other	7	8

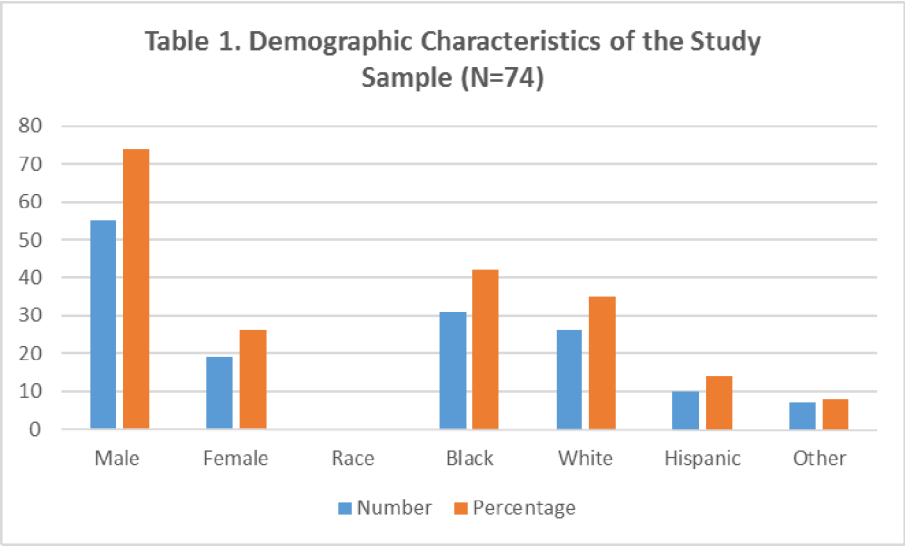


Table 2. Descriptive Statistics of Age and TT Scores (N=74)

The participants' ages ranged from 24 to 83, with a mean age of 51 and a standard deviation of 13. The participants' trust scores ranged from 11 to 42, with an average score of 26 and a standard deviation of 7.

Table 2. Descriptive Statistics of Age and Total Trust (TT) (N=74)

	N	R	Min	Max	M	SD	Skew		Kurtosis	
							S	SE	S	SE
Age	74	59	24	83	51	13	-0.1	0.3	-0.5	0.6
TT	74	31	11	42	26	7	0.6	0.3	-0.1	0.6

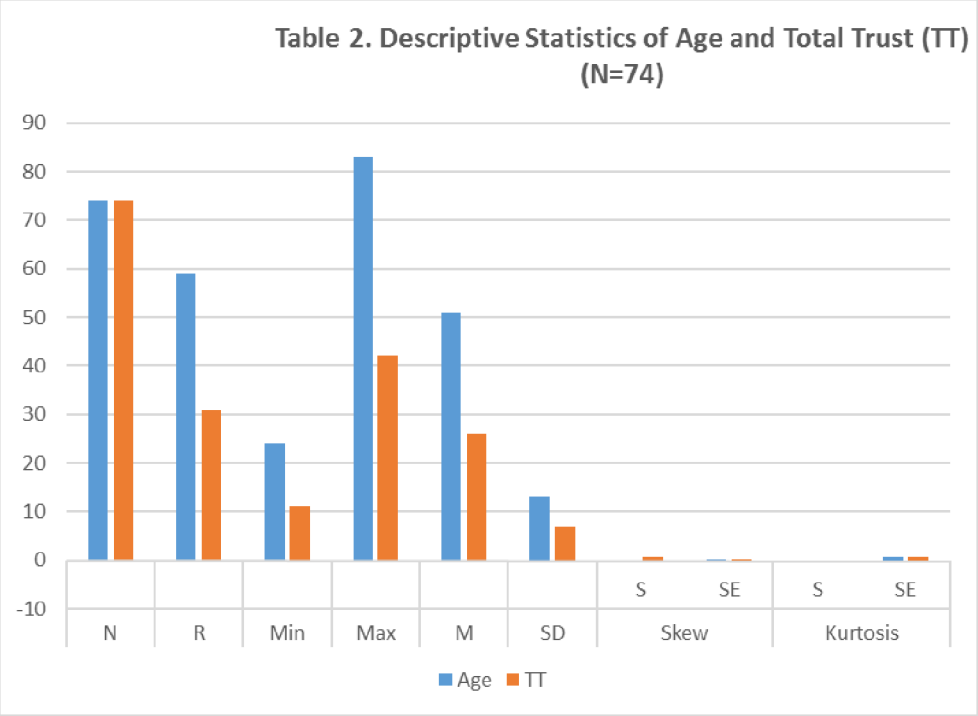


Table 3. Correlations of Attachment Styles with Demographic Data (N=74)

Attachment styles using the RQ were quantified as follows:

- 1-secure
- 2-fearful
- 3-preoccupied
- 4-dismissing

The demographics as independent variables were quantified as follows:

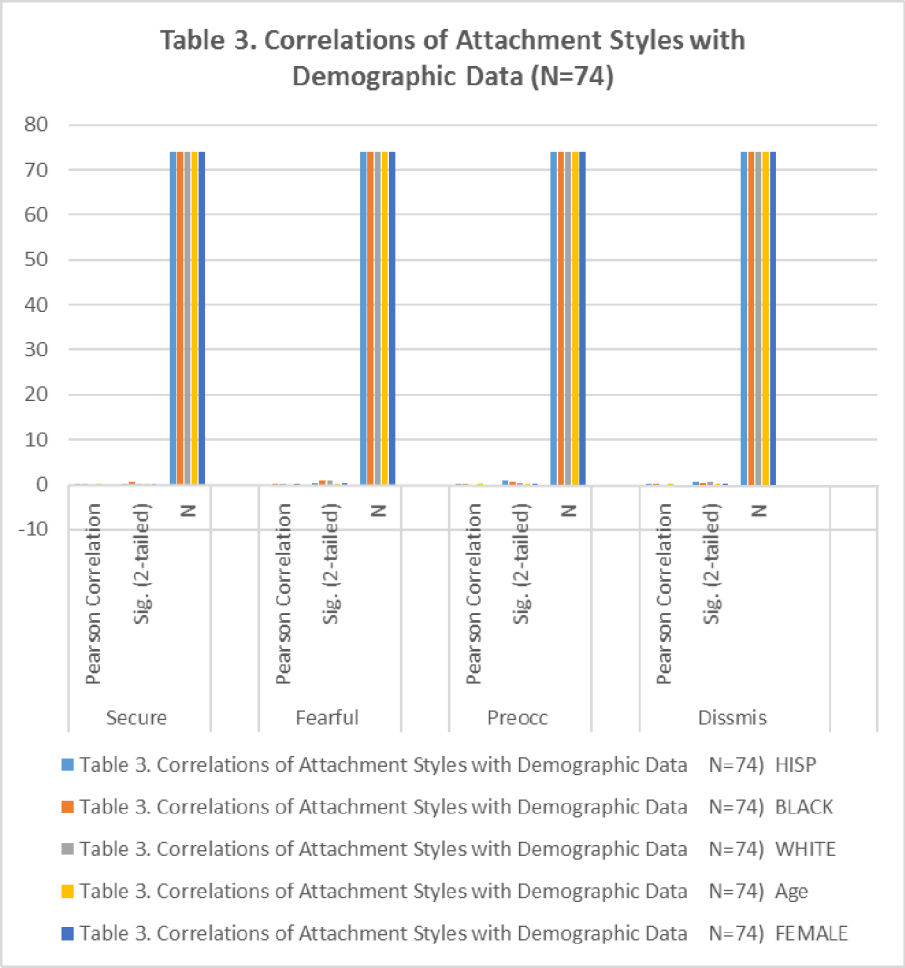
- Gender = 1-*male*, 2-*female*;
- Race/Ethnicity = 1-2-3-4-5-6-7.

The dependent variable, patients' level of trust in their physician, was quantified as the total score of all 11 items in the TPS

- the lowest possible score being 11 and the highest being 55.

Multiple regression was used to examine the relationship of each participants attachment style, demographics and the TT score toward their physicians. The first analysis using the Pearson correlation 2-tail test examined the correlation of the attachment styles with each of the following demographic groups: (a) age; and (b) gender and (c) race: Black, Hispanic, and White.

		HISP	BLACK	WHITE	Age	FEMALE
Secure	Pearson Correlation	.247	.035	-.240	.190	-.171
	Sig. (2-tailed)	.034	.764	.040	.105	.145
	N	74	74	74	74	74
Fearful	Pearson Correlation	-.110	.011	.024	-.267	.109
	Sig. (2-tailed)	.353	.926	.839	.021	.353
	N	74	74	74	74	74
Preocc	Pearson Correlation	.002	.045	-.084	.222	-.256
	Sig. (2-tailed)	.988	.705	.476	.057	.028
	N	74	74	74	74	74
Dissmis	Pearson Correlation	.037	.096	-.065	.218	-.171
	Sig. (2-tailed)	.757	.417	.580	.062	.144
	N	74	74	74	74	74



Covariates chosen for each model of TT, the variable representing a participant's total trust score, depended on the type of relationship style that was being analyzed.

Table 4. Coefficients of TT and Secure Attachment

Model		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B	
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
1	(Constant)	28.606	1.525		18.754	.000	25.565	31.647
	Secure	-.647	.339	-.219	-1.907	.061	-1.324	.029
2	(Constant)	25.529	4.021		6.349	.000	17.506	33.552
	Secure	-.731	.374	-.248	-1.953	.055	-1.478	.016
	Hisp	1.641	2.686	.081	.611	.543	-3.719	7.000
	Black	.386	1.767	.028	.219	.828	-3.140	3.912
	Age	.054	.070	.099	.764	.448	-.087	.194
	Female	1.065	1.989	.067	.535	.594	-2.904	5.034

Table 5. Coefficients of TT and Fearful Attachment

The standardized coefficient = 0.12 and p = 0.36 were used.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	25.002	1.518		16.473	.000	21.976	28.027
	Fearful	.330	.379	.102	.872	.386	-.425	1.085
2	(Constant)	22.168	4.763		4.654	.000	12.663	31.672
	Fearful	.376	.408	.117	.923	.359	-.437	1.190
	Hispanic	.424	2.645	.021	.160	.873	-4.854	5.702
	Black	-.056	1.786	-.004	-.031	.975	-3.621	3.509
	Age	.045	.073	.082	.610	.544	-.101	.191
	Female	1.429	2.022	.090	.707	.482	-2.605	5.463

Table 6. Coefficients of TT and Preoccupied Attachment

The standardized coefficient = 0.19 and p = 0.13 was used.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	24.590	1.361		18.072	.000	21.878	27.303
	Preoccup	.640	.459	.162	1.394	.168	-.276	1.556
2	(Constant)	23.421	4.078		5.743	.000	15.284	31.559
	Preoccup	.761	.492	.193	1.547	.126	-.220	1.743
	Hispanic	-.111	2.584	-.005	-.043	.966	-5.267	5.046
	Black	-.311	1.769	-.022	-.176	.861	-3.842	3.219
	Age	.010	.071	.018	.137	.891	-.131	.150
	Female	2.072	2.040	.131	1.015	.313	-1.999	6.142

Table 7. Coefficients of TT and Dismissing Attachment

The standardized coefficient = 0.27 and p = 0.03 were used.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	22.848	1.732		13.195	.000	19.396	26.300
	Dismiss	.745	.351	.243	2.123	.037	.046	1.445
2	(Constant)	22.457	4.054		5.540	.000	14.368	30.545
	Dismiss	.828	.373	.270	2.221	.030	.084	1.573
	Hispanic	-.537	2.550	-.027	-.211	.834	-5.626	4.552
	Black	-.639	1.750	-.046	-.365	.716	-4.130	2.853
	Age	-.002	.070	-.005	-.035	.972	-.142	.137
	Female	1.914	1.976	.121	.969	.336	-2.028	5.856

Additional analyses compared the major demographic groups with each other and the following were noted:

1. The largest racial ethnic subgroups were
    a. Black respondents, making up 42% of total respondents,
    b. White respondents, making up 35%, and
    c. Hispanic respondents, making up 14%.
2. Of the participants,
    a. 74% were male and 26% were female.
    b. Among the 31 Black respondents, 22 were male and 9 were female.
    c. Among the 26 White respondents, 20 were male and 6 were female.
    d. And among the 10 Hispanic participants, 8 were male and 2 were female.
3. Chi Square analyses were conducted to compare the likelihood of Black, White, or Hispanic respondents vs. other respondents to be female.
    a. For Black respondents (CHISQ=0.315; DF=1; P>.10).
    b. For White respondents (CHISQ=0.142; DF=1; P>.10).
    c. For Hispanic respondents (CHISQ=0.195; DF=1; P>.10).
4. T-tests were conducted to identify significant differences in age or average style scores between men and women, and in Black, White, or Hispanic respondents versus other respondents.
    a. The mean age for Black respondents was 51.1 ± 12.8 years vs. nonBlack 50.8 ± 12.8 years (t=-0.09; df=72; p>0.10).
    b. The mean age for White respondents was 50.7 ± 12.5 years vs. non-White mean age 51.1 ± 13.0 years (t=0.13; df=72; p>0.10).
    c. The mean age for Hispanic respondents was 51.7 ± 12.3 years vs. non- Hispanic 46.3 ± 15.2 years (t=1.25; df=72; p>0.10).
    d. And the mean age for men was 53.4 ± 11.7 vs. women 43.8± 13.1 (t=2.97; df=72; p<.05).
5. The average secure attachment score
    a. for Black respondents was 3.93 ± 2.29 vs. non-Black 3.76 ± 2.42 (t=-0.30; df=72; p>0.10).
    b. for White respondents 3.08 ± 2.38 vs. non-White 4.25 ± 2.26 (t=2.09; df=72; p<.05).
    c. for Hispanic respondents 5.30 ± 1.89 vs. non- Hispanic 3.61 ± 2.35 (t=-2.17; df=72; p<.05).
    d. for men 4.07 ± 2.31 vs. women average 3.16 ± 2.41 (t=1.47; df=72; p>0.10).
6. The average fearless attachment score
    a. for Black respondents 3.42 ± 2.29 vs. non-Black 3.37 ± 2.07 (t=-0.09; df=72; p>0.10).
    b. for White 3.46 ± 2.23 vs. nonWhite 3.35 ± 2.13 (t=-0.20; df=72; p>0.10).
    c. for Hispanic respondents 2.80 ± 1.55 vs. non-Hispanic 3.48 ± 2.23 (t=0.94; df=72; p>0.10).
    d. for men 3.25 ± 2.02 vs. women 3.79 ± 2.51 (t=-0.93; df=72; p>0.10).

7. The average preoccupied attachment score
    a. for Black respondents 2.48 ± 1.95 vs. non-Black 2.33 ± 1.63 (t=-0.38; df=72; p>0.10).
    b. for White respondents 2.19 ± 1.52 vs. non-White 2.50 ± 1.88 (t=0.72; df=72; p>0.10).
    c. for Hispanic respondents 2.40 ± 2.01 vs. non-Hispanic 2.39 ± 1.73 (t=-0.02; df=72; p>0.10).
    d. for men 2.65 ± 1.89 vs. women 1.63 ± 1.01 (t=2.25; df=72; p<.05).
8. The average dismissing attachment score
    a. for Black respondents 4.64 ± 2.21 vs. non-Black 4.21 ± 2.30 (t=-0.82; df=72; p>0.10).
    b. for White respondents 4.19 ± 2.37 vs. non-White 4.50 ± 2.22 (t=0.56; df=72; p>0.10).
    c. for Hispanic respondents 4.60 ± 2.32 vs. non-Hispanic 4.36 ± 2.27 (t=-0.31; df=72; p>0.10).
    d. for men 4.62 ± 2.16 vs. women 3.74 ± 2.47 (t=1.48; df=72; p>0.10).

Summary of results: The results of the correlation analysis demonstrated that three of the attachment styles correlated with demographic data and regression analysis indicated an association in the models of TT as functions of both the secure and the dismissing attachment styles.

1. The **secure attachment scores** correlated positively with Hispanic participants and negatively with White participants, meaning that the secure attachment score was more likely to occur in Hispanic participants and less liable to occur in White participants.
2. The **fearful attachment score** correlated negatively with age. For this reason, the fearful attachment score was more likely to occur in younger participants.
3. The **preoccupied attachment score** correlated with gender, with occurrences being more likely in male than female participants.
4. However, the **dismissing attachment score** did not correlate with any demographic data.

When analyzing TT as a function of the attachment **scores**, the following was demonstrated:

1. TT as a function of the **secure attachment score** showed a negative association, with the standardized coefficient = -0.25 and p = 0.055. For this reason, for every point increase in the secure attachment score, the TT was likely to reduce by a quarter of a point.
2. TT as a function of the **dismissing attachment score** demonstrated a positive association, with the standardized coefficient = 0.27 and p = 0.03. For this reason, for every point increase in the dismissing attachment score, TT was likely to increase by a quarter of a point.
3. There was no association found in the TT as functions of either the **fearful or preoccupied** attachment scores. No other variables were significantly associated, in either case.

When examining the relationship between the responses of the race and ethnic groups, The Chi-Square tests indicated no difference in the responses of (a) Black participants vs. non-Black respondents; (b) White respondents vs. non-White respondents; or (c) Hispanic respondents vs. non-Hispanic respondents. In the T-tests, males and females demonstrated a significant difference in the following:

1. Males mean age of 53.4 ± 11.7 vs. women average age of 43.8± 13.1; t=2.97; df =72; p<.05)
2. A significant difference was observed in average preoccupied attachment scores of males average of

2.65 ± 1.89 vs. females average of 1.63 ± 1.01; t=2.25; df=72; p<.05).

3. With P values all above 0.10, there was no significant difference in age or average preoccupied attachment score between Black vs. non-Black respondents, White vs.. non-White respondents or Hispanic vs. non-Hispanic participants.
4. White participants demonstrated a significant difference in average, secure attachment score from non-White participants (White average 3.08 ± 2.38 vs. non-White 4.25 ± 2.26; t=2.09; df=72; p<.05).
5. There was also a significant difference in average secure attachment score between Hispanic participants and non-Hispanic participants (Hispanic average 5.30 ± 1.89 vs. non- Hispanic 3.61 ± 2.35; t=-2.17; df =72; p<.05).
6. There was not a significant difference between males and females or Black respondents and others in average, secure attachment score. The t-tests also indicated no difference in average fearful or dismissing attachment scores between any of the selected demographic groups.

Conclusion

The data analysis supported accepting the hypothesis that there is a relationship between patients' adult attachment styles and their level of trust in their physicians at HCS, given patients' age, race, and gender. Linear regression results indicated that as participants' secure attachment style scores increased, their trust in their physicians decreased, and as participants' dismissing style scores increased, their confidence in their physicians increased. Data analysis also indicated that there is a relationship between gender and preoccupied attachment style scores as well as between race and secure attachment style scores in the patients at HCS. T-test results demonstrated that male participants tend to be older and have higher preoccupied attachment style scores than female participants. White participants tended to have lower secure attachment style scores that non-White participants, while Hispanic participants tended to have higher secure attachment style scores than non-Hispanic participants.

Although the hypothesis was confirmed, the results were surprising. The researchers anticipated that dismissing attachment styles would tend to be less trusting, that secure attachment styles would have moderate levels of trust, and that fearful and preoccupied attachment styles might express either high or low levels of trust. However, the results demonstrated that secure attachment styles were less trusting of their physicians, dismissing attachment styles were more trusting of their physicians, and preoccupied or fearful attachment styles did not demonstrate any association with trust totals. Possibly patients with a dismissive attachment style may view physician competence as most critical while secure styles who value close relationships are more skeptical if their physicians are concerned about them. Further study is needed to understand better these relationships.

Our belief is that patients can become attached to their physicians and are vulnerable particularly in stressful or life-threatening encounters. Patient attachment styles may be influential in determining the patient-provider relationship and ultimately compliance, cooperation, and success in treatment. If providers could understand patient attachment style, they could adjust their interactions in numerous ways including their style of sharing information, being more adept and ready for patient resistance or skepticism, or being more careful not to influence patients who are more trusting in style.

By demonstrating that there is a relationship between adult attachment styles and the belief that patients' have in their physicians, this study confirmed the need more clearly to understand adult attachment and the patient-provider relationship. However, understanding how attachment styles can help the provider-patient relationship is not as clear. For example, why are patients with secure attachment styles more likely to be associated with less trust in their physicians, while dismissing styles are more likely to be related to

increased trust? Results also indicated that there is a relationship between attachment style and gender and race among the veterans that participated in the study with White participants averaging higher secure attachment scores, Hispanic participants averaging lower secure attachment scores, and male participants averaging higher preoccupied scores.

Although it may be difficult to generalize the results of the veteran population, further research may be needed to expand on some of our findings. Mixed-method studies can be used to explore attachment trends, such as why secure styles were more skeptical - or less trusting - of their physicians than other styles, why dismissing styles tended to be more trusting of their physicians than other groups, and how relationship trust impacts perception and satisfaction with care. We also believe it will be important to ascertain if male veterans are consistently more likely than females to identify themselves as preoccupied. This particular style tends to be inner focused and probably more prone to anxiety disorders. In fact, the four styles are clearly related to the construct of anxiety and its connection to attachment. Combinations of anxiety and avoidance can be used to define the four attachment styles. For example, a secure style of attachment is characterized by low anxiety and low avoidance; a preoccupied style of attachment is characterized by high anxiety and low avoidance; dismissive/ avoidant styles of attachment are characterized by low anxiety and high avoidance; and fearful /avoidant styles of attachment are characterized by high anxiety and high avoidance.

Because Hispanic participants tended to have higher secure scores while White participants tended to have lower secure scores, more quantitative studies would also be necessary for assessing the relationship between race and attachment style. If these trends prove to be consistent, qualitative studies can be used to explore these constructs. Since both the patient and the physician play a significant role in patient-provider relationships, further studies should include physicians and their attachment styles to assess whether how physician style affects the patient-provider relationship.

In conclusion, the breadth of literature regarding adult attachment, trust, and interpersonal relationships indicates that there may be a link between adult attachment theory in the health care setting and improvement of services. This study was conducted specifically to evaluate whether there is a relationship between patients' adult attachment styles and their level of trust in their physicians at HCS, given patients' age, race, and gender. The results of this study indicated that there is a relationship between patients' adult attachment styles and their level of trust in their physicians at HCS, given patients' age, race, and gender. This study can, for this reason, be used as a foundation for further research to understand better how trust and adult attachment impacts the patient-physician relationship and to identify ways this knowledge can improve veteran healthcare outcome.

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