

Exploring Adult Attachment Style and Conflict Resolution Strategies:
A Directed Content Analysis to Improve Communication with Family Members of Patients in
the Intensive Care Unit

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A dissertation
submitted in partial fulfillment of the
requirements for the degree of

Doctor of Philosophy

University of Washington

2013

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Program Authorized to Offer Degree:

School of Nursing

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Abstract

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Background: Multiple studies have suggested that communication with family members in the ICU is inadequate. Researchers have found that family members understand less than half of basic patient information; family members experience increased anxiety and depression when excluded from decision making; and family members often report conflicts with healthcare team (HCT). Most strategies to address this gap in communication have been general approaches that have offered a standard package of supports.

Problem: This analysis used an exploratory design with an existing dataset to explore the use of individualized, targeted strategies for addressing communication needs of families of ICU patients and their HCTs.

Methodology: The existing dataset of 79 field notes were recorded by trained facilitators as part of a multi-center, randomized trial of an intervention study designed to improve communication

between the HCT and families of ICU patients. Data were analyzed using a directed content analysis approach. The initial coding scheme was derived from adult attachment theory and Moore's theory of conflict and conflict resolution.

Results: Of the 79 field notes, the attachment style of the main family member was available for 62 and reflected the proportion reported in other research (i.e., secure = 48%; versus insecure types including self-reliant = 34%, cautious = 10%, or support-seeking = 8%). Eight communication strategies were identified to improve communication. Conflicts were identified commonly in the field notes (220 separate conflicts). The most common parties involved were families and the HCT (162 conflicts). Family members with cautious attachment experienced the most conflict.

Discussion: These findings suggest that trained facilitators can use strategies based on attachment style to improve communication with family members. These facilitators tailored their interactions with self-reliant family members in an effort to encourage a typically reluctant population to ask questions and participate collaboratively in decision-making, while families with cautious attachment were assisted to build trust and participate collaboratively. Data from this analysis also suggest that family members with cautious attachment may be at risk for conflict with members of the HCT. Finally, HCT members may be more inclined to collaborate when family members have a secure attachment style.

TABLE OF CONTENTS

List of Tables	iii
List of Figures	iv
Chapter 1. Introduction	1
Chapter 2. Review of the Literature.....	5
Introduction to Attachment Theory	5
Attachment Theory and Health	11
Methods	13
Findings.....	16
Interventions and Recommendations for Insecure Attachment	25
Implications for Nursing	27
Chapter 3. Exploring Adult Attachment Style and Conflict Resolution Strategies ..	30
Introduction.....	30
Design	32
Theoretical Framework and Analytical Approach	33
Description of Data.....	39
Data Analysis	40
Results	45
Discussion	68
Limitations	71
Chapter 4. Conclusion	74
Reflections on Methodological Approach	75
Reflections on Adult Attachment Theory and Implications for Education ...	76

Reflections on Conflict Theory and Implications for Practice	77
References	79
Appendix	88

LIST OF TABLES

Table 2.1 Disease Risk and Illness Behaviors As Evidenced in Adult	
Attachment Theory Research.....	17
Table 3.1 Directed-Content Analysis Coding Scheme	41
Table 3.2 Demographics	45
Table 3.3 Frequency of Conflict Types	62

LIST OF FIGURES

Figure 2.1 Composite Attachment Theory Model	9
Figure 2.2 Article Selection	15
Figure 2.3 Summary of Disease Risk and Illness Behaviors Using Various Attachment Styles	18
Figure 3.1 The Satisfaction Triangle: Interdependent Interests and Corresponding Conflicts	36
Figure 3.2 Model of Thomas-Kilmann Conflict Resolution Styles with Adult Attachment Styles	38
Figure 3.3 Frequency of Facilitator Action Used in Response to Primary Family Member Attachment Style	54
Figure 3.4 Frequency of Facilitator Collaboration with Healthcare Team in Response to Primary Family Member Attachment Style	56
Figure 3.5 Main Family Attachment Style and Conflict Type	67

ACKNOWLEDGEMENTS

I want to express sincere appreciation to my husband, Gabriel Barber, who probably had no idea what he was getting into when he married a doctoral student. Your patience, love, and ongoing support have brought me to this moment, which I thought would never come. I wish to thank my sons Jaxon and Nikolas for letting me work seemingly endless days and nights. I owe both of you many goodnight kisses.

I wish to thank my father, Dr Bolek Brant-Zawadzki, for giving me the support and encouragement to persevere through this somewhat meandering journey. You taught me the importance of being independent and I will never forget that.

I wish to thank J. Randall Curtis and his exceptionally skilled team of researchers for trusting me with a remarkably robust dataset. Specifically, I would like to thank Paul Ciechanowski, Ruth Engelberg, Elizabeth Nielson, Jessica Young, Patsy Treece, and Julia Gold. Each of you played a vital role in this journey and I am truly privileged to have had the opportunity to work with you.

And finally, I wish to thank my committee chair and mentor Sarah Shannon, PhD, RN, who was consistently the calm voice of reason in a whirlwind of chaos; Joanne Whiney, PhD, RN, my advisor and mentor; Joanne Warner, PhD, RN; Joane Mocerri, PhD, RN; Theresa Goodell, PhD, RN; Danita Ewing, PhD, RN; the late Linda Birenbaum, PhD, RN; and the late Marsha Heims, PhD, RN. I feel honored to be in the company of such brilliant, strong women.

DEDICATION

This dissertation is dedicated in loving memory of my mother, Bonnie Belle Sastrom, ICU nurse and graduate of the University of Washington, School of Nursing. I made a promise to you that I would finish, and you made a promise to me that you would be watching. I love you.

CHAPTER 1

INTRODUCTION

Patients and their families are forced to trust all aspects of healthcare. As illness impairs the integral connection of body and self, it also alters the natural relationships with others and the surrounding world. Furthermore, as these natural relationships become more disrupted, patients and their families find themselves involved in different types of “unavoidable trust” (Pellegrino, Veatch, & Langan, 1991, p. 49). They must trust physicians, nurses, lab technicians, researchers, administrative personnel, and other people involved in their care. They also have no choice but to trust manufacturers, medications, surgical equipment, and other products that healthcare providers use in the numerous procedures that healthcare clinicians perform on them and for them. Because of this concept of unavoidable trust, communication between the healthcare team and the patient and his or her family takes on great significance.

As healthcare providers, our clinical judgment frequently involves uncertainty and ambiguity. Yet for patients and their families, illness tends to provoke a need to know and to understand: What is wrong? Can it be fixed? How bad is it? What will this mean for my family now and in the future? What should we do or not do? Research has shown that in general, family needs often go unrecognized (Kotkamp-Mothes, Slawinsky, Hinderman, & Stauss, 2005; Molter, 1979). Even in situations when families’ needs are known to the ICU staff, studies have indicated that healthcare providers do not always address these needs, their focus tending to be on the *medical* needs of the patient (Bijttebier, Vanoost, Delva, Ferdinande, & Frans, 2001). While patients and their families are concerned about knowing and understanding, they are

equally concerned that those who take care *of* them also care *for* them. From the perspective of patients and their families, situations may develop that question whether trust is truly warranted. When we become ill or injured, we concretely experience our bodies as a source of uncertainty: What is causing the pain? How long will this last? How will this impact my life? We have a very profound yet natural desire to know with as much certainty as possible what can and should be done, and whether those who take care of us also care for us. The experience of illness, which is often perilous and urgent, generates the need for candid, sensitive conversations that can evoke genuine trust so that decisions, at times critical and irreversible, can be made even when their basis may be uncertain or ambiguous.

As a bedside clinician, nursing leader, nursing educator, and family member, I have experienced both the challenge of good communication and the grief of failed communication. As a nurse at the bedside and part of the direct healthcare team, I have had extensive first-hand experience working with critically ill patients and their families. As an assistant nurse manager, I have contended with the ramifications of poor communication by providing service recovery to improve the patient experience. As the daughter of a recently deceased mother who succumbed to ovarian cancer, I have experienced the pain, frustration, and helplessness as a result of poor communication from the healthcare team. As an educator, I role-model and teach effective communication skills so my students feel prepared to take care of and advocate for the needs of their patients in a professional manner.

From a clinician's perspective, failure is most often perceived as a "bad" thing: resuscitation efforts failed, the surgery failed, or drug therapy failed. Admitting failure may be experienced as taking blame, which, in the context of healthcare, is complicated for clinicians. In my work as a clinician, I have witnessed many failures in healthcare, and they have prompted me

to think about ways to promote a healthcare culture in which it is safe to admit and report failure without sacrificing high standards of performance. I believe a commitment in healthcare to examining our failures is in order. I feel an ethical responsibility to contribute to the science of communication in healthcare so as to improve healthcare and patients' and families' experiences with it.

An opportunity to contribute to more effective communication in healthcare presented itself when I got a chance to analyze an existing dataset of field notes from facilitators trained to provide support to families and improve inter-professional communication within the ICU team. This dataset was grounded in an existing theory surrounding patient-provider relationships and adult attachment theory, and existing models for good communication, mediation strategies, and best practices for family conferences. In Chapter 2, I review the theory surrounding adult attachment theory and applications in healthcare, including potential applications for nursing therapeutics. In Chapter 3, I report the results from my directed content analysis of these field notes from an intervention study designed to provide support to families of seriously ill patients. Finally, in Chapter 4, I offer reflections on the contributions to theory, practice, and education that this analysis and adult attachment theory in general offer for nursing science and practice.

CHAPTER 2

REVIEW OF THE LITERATURE

Introduction to Attachment Theory

Attachment theory is derived from psychosocial development theory that has historically used both animal models and longitudinal studies in humans. Based primarily on the efforts of Bowlby (1965), attachment theory proposes that some types of social relationships in adulthood are highly influenced by childhood attachments between the individual and his or her primary caregiver (Bowlby, 1965; Hooper, Tomek, & Newman, 2011). These attachment relationships are characterized by neediness, dependence, and vulnerability in such a way that as one person experiences distress and seeks help or reassurance, the attachment figure offers it. In human social life, attachment figures are relevant to childcare, care of dependents, the experience of disease or illness, and separation from or loss of loved ones (Adshead, 2010).

Attachment theory can also be used to explain how individuals may develop dysfunctional arousal and affective responses to stress. The attachment relationship with the primary caregiver can be compared to a type of *growth medium* in which genetic profiles are expressed over time. In this manner, early attachment experiences become represented in the brain as an *internal working model* or a complex schema of images, beliefs, and attitudes towards attachment relationships (Adshead, 2010; Bowlby, 1965; Hooper et al., 2011).

History of Attachment Theory

Early work in attachment research measured infant attachment through direct observations of behavior. This experimental paradigm studied the responses of infants to separation from their attachment figures and found that infants fell into two main groups: the majority (60%) who appeared to show a *secure* behavior pattern and a minority who showed

insecure behaviors. Furthermore, infants with insecure behavior patterns fell into three subgroups: those who were *avoidant* of attachment to their caregivers after separation; those who were *ambivalent* towards them, and those who showed highly *disorganized* and disturbing behaviors (Backermans-Kranenburg & VanIjzendoorn, 2009).

Following the identification of infant attachment behavior patterns, researchers initiated longitudinal studies exploring how secure and insecure children cognitively represent their attachment experiences by comparing their psychological or behavioral development. These longitudinal studies found that childhood attachment patterns, especially the insecure types, tend to persist into adulthood. Furthermore, insecure children tend to be at an increased risk of suffering psychological distress in adulthood than are secure children (Hunter & Maunder, 2001).

Another area of attachment research has focused on attachment representations in adults and transgenerational replication of attachment through caring relationships. The first studies of adult attachment began with the exploration of the attachment histories of the same mothers who had participated in the early infant separation research, and these studies showed similar results of secure and insecure attachment patterns. A semi-structured attachment interview, the Adult Attachment Interview, was developed from these data, which could be reliably measured, independent of class, culture, and intelligence. Other interviews have since been developed including the Attachment Style Interview (Hooper et al., 2011). Interestingly, a mother's own attachment security representation reliably predicted her child's attachment security. Self-report measures of attachment have also been developed, which rely heavily on experimental techniques and thus allow for a quick and reliable measurement (Adult Attachment Scale and the Relationship Questionnaire) (Hooper et al., 2011). Whether using the personality and

developmental psychology perspective (interviews) or the social psychology perspective (self-reports) (Hooper et al., 2011), studies of the psychological experience of care-giving and care-eliciting relationships consistently demonstrate differences between securely and insecurely attached individuals (Adshead, 2010).

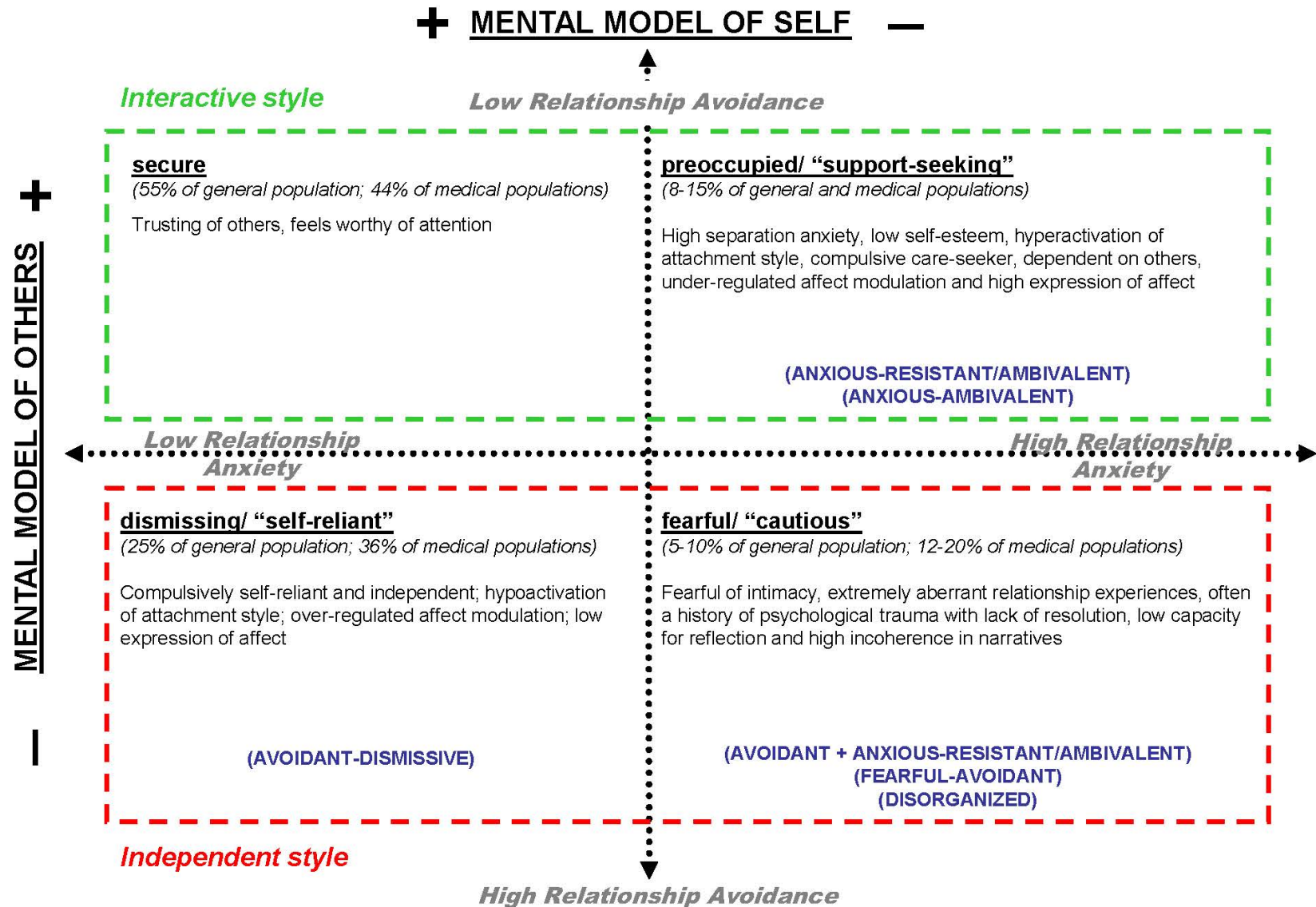
Measurement and Terminology

Two main frameworks exist for measuring attachment style in adults. The first was derived from a personality and developmental psychology perspective and relies on interview measures for attachment; the second originated from social psychology and uses self-report measures to assess attachment style. The first interview-style measurement tool, which stemmed from the original observational techniques used with infants, is the Adult Attachment Interview (AAI), which is composed of in-depth personal accounts of attachment behaviors over the long term. Other interview-style measures including the Attachment Style Interview (ASI) are gaining popularity in clinical practice.

While some researchers appreciate the informative nature of the interview method and argue that a self-report questionnaire could never capture such a vast amount of information, it can be challenging to incorporate multiple independent or dependent variables within a controlled environment. The self-report method to measure attachment relies heavily on experimental techniques and thus allows for a quick and reliable measurement. Some researchers prefer to use this method because there is evidence that it captures the same underlying information as the longer, more burdensome interview method. Some examples of self-report measurements are the Adult Attachment Scale and the Relationship Questionnaire. While these measures are relatively simple to administer in experimental studies, there is a lack of constancy among the terminology used to describe the different attachment styles (Hooper et al., 2011).

Figure 2.1 depicts a fusion of attachment theory terminology that can be used as a guide when comparing the various studies.

Figure 2.1. Composite Attachment Theory Model



In the four-category model in the figure, a person who has positive expectations of both self and others is *secure*. Secure attachment is associated with an internalized sense of being worthy of care, of eliciting care when needed, and of dealing with most personal stressors independently. Secure people are often described as adaptable, capable, trusting, and understanding (Maunder & Hunter, 2001). By contrast, insecure attachment generally describes a style characterized by high attachment anxiety (preoccupied), high attachment avoidance (dismissing), or a combination of the two (fearful) (Agostini et al., 2010).

Preoccupied attachment, which correlates to infant ambivalent attachment, is associated with excessive care-seeking, separation protest, and fear of loss. Preoccupied individuals tend to be anxious, dependent, emotional, impulsive, and continually seeking approval. And although they seek care, the result is typically partial and transient. People who have a general distrust of others but have a relatively positive view of themselves are classified as *dismissing*. While a self-sufficient, independent, undemanding attitude is often highly desirable, the associated distrust and avoidance of intimacy cause the underlying insecurity. Situations that demand relinquishing control and depending on others may result in crisis. Dismissing attachment is characterized by coldness to others and competitiveness. And lastly, those who have negative expectations of self and others are designated as *fearful*. Fearful attachment is the most recent and least understood of the four categories. Fearful individuals are described as cautious, doubting, self-conscious, shy, and suspicious. Together, dismissing and fearful attachment correlate to infant avoidant attachment, and many studies do not distinguish between dismissing and fearful attachment and often label the combined category *avoidant* (Hooper et al., 2011; Maunder & Hunter, 2001).

The adult attachment theory literature shows a lack of consensus regarding best practice of measurement (Hooper et al., 2011). Some investigators preferred categorical frameworks

(Cozzarelli, Sumer, & Major, 1998; Ciechanowski, Walker, Katon, & Russo, 2002) while others preferred dimensional frameworks in order to understand, classify, and measure attachment styles (Ercolani et al., 2010; Gick & Sirois, 2010). This poses challenges when comparing findings, as the selected tool to measure attachment generates and uncovers different data depending on the framework used.

Generalizability

In a recent review of 10,000 adult attachment interviews, Backermans-Kranenburg and VanIjzendoorn (2009) found that 58% of the non-clinical population was rated as secure. In the 42% who were rated as insecure, 23% were categorized as dismissive, 19% were preoccupied, and a subset of the insecure (18%) were found to have a history of unresolved trauma. In the clinical/ medical population, there was an opposite shift demonstrating more insecure than secure individuals (Backermans-Kranenburg & VanIjzendoorn, 2009).

Studies of attachment types in different age groups have shown that the prevalence of avoidant attachment is fairly constant across all age cohorts (between 20% and 25%) whereas the prevalence of preoccupied attachment is less in older cohorts (about 20% at college age dropping to 5%-8% in middle age) (Maunder & Hunter, 2001). And while longitudinal studies have supported the general stability of attachment style over time, recent work has proposed that negative life experiences may alter attachment style (Davila & Cobb, 2003).

Attachment Theory and Health

As mentioned above, early attachment experiences become represented in the brain as internal working models or a complex schemas of images, beliefs, and attitudes towards attachment relationships (Maunder & Hunter, 2001). Consequently, attachment type or attachment style is then understood as a disposition toward certain perceptions of others, certain

perceptions of self, and certain preferred strategies that are triggered by the presence of a perceived threat. Although the emergence of attachment behavior is largely context-dependent, the internal working model that provides consistency to the pattern of the emerging behavior is a trait (Maunder & Hunter, 2001).

Mickelson, Kessler, and Shaver (1997) documented that even in the absence of serious illness, symptoms can provoke fears of mortality and threaten assumptions about life. Some theorists have argued that thoughts and images can activate the attachment behavioral system (Bartholomew & Horowitz, 1991; Hazan & Shaver, 1987). Thus, it is not surprising that with compromised health, intense emotions give rise to intense needs. The difficulty with these scenarios is that when threats to health occur, few relationships offer the level of clinical expertise necessary to improve health (Salmon & Young, 2009). In some of the more extreme cases, clinical experts become the attachment figure, which can upset the natural balance of adult relationships.

The adult attachment literature explores ways in which attachment style can be used to understand patterns of disease risk (Maunder & Hunter, 2001) and illness behaviors (Hunter & Maunder, 2001) as they pertain to overall health of the medical population (Maunder & Hunter, 2008). Existing studies on attachment insecurity and illness led Maunder and Hunter to examine the possibility that insecure attachment contributes to disease processes. They developed a model describing three mechanisms by which insecure attachment may increase disease risk: altered stress physiology, increased use of external regulators of affect, and altered use of health-protective behaviors (Maunder & Hunter, 2001).

Attachment and stress are related in that the human stress response is an evolutionary adaptation triggered by environmental threat, while the attachment system works to increase

security during environmental threat. Within this evolutionary framework, attachment insecurity may increase perceived stress, may affect the intensity or duration of the physiological stress response, and may interfere with the success of social support in buffering stress. The second pathway is based on the premise that insecure attachment results in deficits in internal affect regulation. As such, insecurity is associated with an increased use of external regulators that are often risk factors for disease (negative behavioral strategies including smoking, drinking alcohol, poor eating habits, etc.). And finally, insecure attachment may increase disease risk through the failure or nonuse of protective factors including social support and treatment adherence. In addition to the evidence supporting these pathways, the authors postulated that the relationship of attachment to illness is “very likely to be bidirectional” and that attachment insecurity contributes to disease by “adding risk as a ‘second hit’ on a preexisting vulnerability” (Hunter & Maunder, 2001, p. 180).

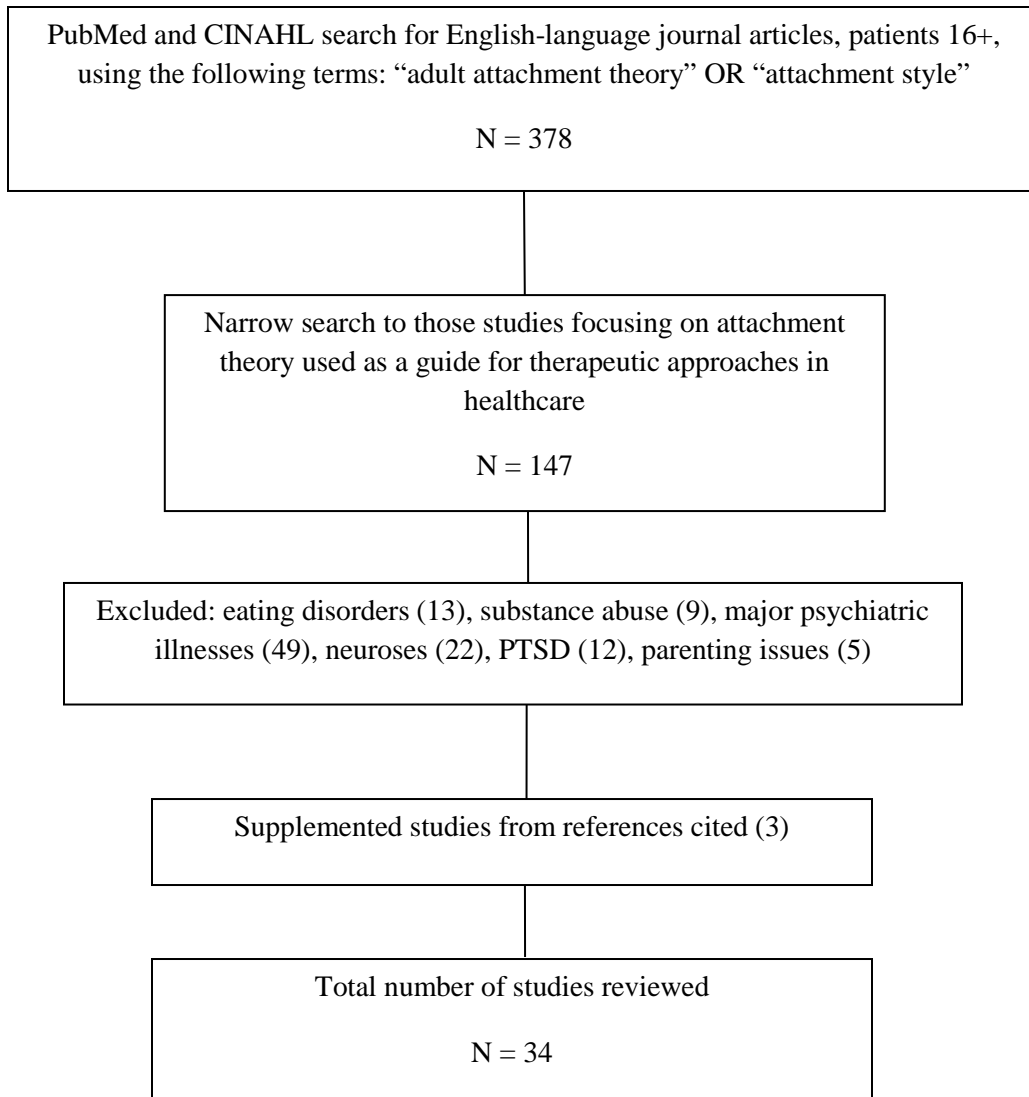
Conceptually, illness behavior is an attempt to account for response factors in illness. McHugh and Vallis (1987) developed an illness behavior model that describes how biological, psychological, and sociocultural dimensions interact to explain how people respond to somatic changes, which lead to subjective distress and help-seeking. From that original work, the current understanding of illness behaviors can be conceptualized as the manner in which individuals monitor bodily structure and function, interpret symptoms, take remedial action, and make use of healthcare resources.

Methods

A comprehensive, systematic review of the literature was conducted using PubMed and CINAHL (see Figure 2.2). The initial search included peer-reviewed journal articles limited to English and subjects 16+ years in age, and it used the following terms *adult attachment theory* OR *attachment style*. This search yielded 378 journal articles, which were then narrowed down

to include only those studies focusing on guiding therapeutic approaches in the healthcare of adults. Of the remaining 147 journal articles, those dealing with eating disorders, substance abuse, major psychiatric illnesses, neuroses, post-traumatic stress disorder, and parenting were excluded. Three additional studies were included from references cited, resulting in a total of 34 studies reviewed (see the appendix).

Figure 2.2. Article Selection



Findings

The 34 articles described ways in which adult attachment theory has been used to guide therapeutic approaches in the care of adults around the risk for specific illnesses and compromised health (see Table 2.1). Based on the complexity of illness behaviors, the variety of illness reviewed, and the variability and inconsistency of attachment theory terminology used, I created Figure 2.3 to help summarize findings from the literature. This 10-category table presents findings from the literature in a way that demonstrates the consistent patterns of adult attachment theory in healthcare.

Table 2.1

Disease Risk and Illness Behaviors As Evidenced in Adult Attachment Theory Research

Disease Risk and Illness Behaviors	Attachment Theory Research
Chronic headaches/migraines	Rossi et al., 2004; Savi et al., 2005
Chronic pain	Davies et al., 2009; Meredith et al., 2008; Cozzarelli et al., 1998
Coping ability	Gick & Sirois, 2010; Hunter et al., 2006; Meredith et al., 2008; Mikuliner et al., 1998; Saragusty et al., 2010; Schmidt, 2003; Turner-Cobb et al., 2002
Diabetes Mellitus	Ciechanowski et al., 2001; Ciechanowski et al., 2004; Ciechanowsk et al., 2010
Dyspareunia	Granot et al., 2011
Gastroesophageal reflux disease	Ercolani et al., 2010
Hypertension	Gallo & Matthews, 2006
Infertility	Mikuliner et al., 1998
Inflammatory bowel disease	Agostini et al., 2010; Ercolani et al., 2010
Post-operative pain	Saragusty et al., 2010
Relationships with healthcare team	Ciechanowski et al., 2001; Ciechanowski et al., 2004; Ciechanowski et al., 2005; Ciechanowski & Katon, 2006; Ciechanowski et al., 2006; Ciechanowski et al., 2010 Maunder et al., 2006; Meredith wr K., 2008; Morris et al., 2009; Pegman et al., 2011; Taylor et al., 2000
Symptom perception/reporting	Ciechanowski et al., 2002; Ciechanowski et al., 2002; Davies et al., 2009; Maunder et al., 2005; Rossi et al., 2004; Sambo et al., 2010; Zech et al., 2006
Use of healthcare resources	Ciechanowski et al., 2002; Ciechanowski et al., 2003; Ciechanowski et al., 2006; Granot et al., 2011

Figure 2.3. Summary of Disease Risk and illness behaviors using various attachment styles

<p>SECURE</p> <p><u>Increased disease risk</u></p> <ul style="list-style-type: none"> • less distressed and more likely to become pregnant <p><u>Illness behaviors</u></p> <ul style="list-style-type: none"> • lower levels of depressive symptoms • least difficult type of patient as perceived by HCT 				<p>INTERACTIVE (POSITIVE MENTAL MODEL OF OTHER)</p> <p><u>Illness behaviors</u></p> <ul style="list-style-type: none"> • may cope better with chronic illness • positive correlation with improvement of depressive symptoms
<p style="text-align: center;">INSECURE</p> <p><u>Disease risk</u></p> <ul style="list-style-type: none"> • ↑ GERD • ↑ IBD • ↑ chronic pain • ↑ chronic HA • ↑ ambulatory BP <p><u>Illness behaviors</u></p> <ul style="list-style-type: none"> • ↓ ability to manage distress • ↓ ability to get and maintain external support • ↓ ability to form therapeutic alliances • perceive more negative intent from HCT • evoke more negative responses from HCT • more likely to sabotage therapeutic efforts • more likely to ask for psychological help • modest effect on relationship with surgeon • ↓ levels of perceived support 	<p>HIGH ANXIETY</p> <p><u>Disease risk</u></p> <ul style="list-style-type: none"> • ↑ GERD • poor post-op pain control • ↑ depression, psychological illness <p><u>Illness behaviors</u></p> <ul style="list-style-type: none"> • ↑ in symptoms leads to ↓ in perceived social support and coping • ↑ mental distress, poor QOL, high distress • consulted physicians for psychological problems • more emotional disclosure but not effective in reducing stress • report ↓ acute pain when there is a perceived empathetic observer 	<p>PREOCCUPIED</p> <p><u>Disease risk</u></p> <ul style="list-style-type: none"> • ↓ HgA1c levels • ↑ chronic pain • ↑ Crohn’s disease <p><u>Illness behaviors</u></p> <ul style="list-style-type: none"> • more likely to elicit confrontational behavior from others • highest care utilization/cost • highest pain-related visits 	<p>NEGATIVE MENTAL MODEL OF SELF</p> <p><u>Illness behaviors</u></p> <ul style="list-style-type: none"> • highest physical symptom reporting • highest number of medically unexplained symptoms • ↑ depressive symptoms 	
	<p>HIGH AVOIDANCE</p> <p><u>Disease risk</u></p> <ul style="list-style-type: none"> • ↑ dyspareunia • ↓ vagal tone <p><u>Illness behaviors</u></p> <ul style="list-style-type: none"> • ↑ report sexual pain • consulted physicians more for physical problems, but fewer depressive symptoms • less emotional disclosure • more severe physical problems • poor relationships with HCT • report ↓ acute pain in the absence of an observer • chronic disease activity is strongly related to negative affect 	<p>FEARFUL</p> <p><u>Illness behaviors</u></p> <ul style="list-style-type: none"> • low levels of perceived support • lowest care utilization/cost • increased patient difficulty as determined by HCT • highly attuned to indications of rejection • ↑ depressive symptoms and catastrophizing 		
			<p>DISMISSIVE</p> <p><u>Disease risk</u></p> <ul style="list-style-type: none"> • highest HbA1c levels when combined with poor provider relationship <p><u>Illness behaviors</u></p> <ul style="list-style-type: none"> • poor provider relationships resulted in poor self-care • more missed health care visits • highly sensitive to being controlled 	<p>INDEPENDENT (NEGATIVE MENTAL MODEL OF OTHER)</p> <p><u>Disease risk</u></p> <ul style="list-style-type: none"> • ↑ death with diabetics <p><u>Illness behavior</u></p> <ul style="list-style-type: none"> • poor collaboration with HCT over time • perception of distinct division of power with HCT that threatens the ability to engage in health care system, clinical benefit from collaborative interventions

Key: HCT= health care team; GERD= gastroesophageal reflux disease; IBD= inflammatory bowel disease; BP= blood pressure; HA= head ache; HgA1c= glycated hemoglobin; QOL= quality of life

In a study on couples undergoing treatment for infertility, those with secure attachment were less distressed and had a better ability to cope with infertility, which increased the likelihood of becoming pregnant (Mikuliner, Horesh, Levy-Shiff, & Manovich, 1998). While exploring the relationships between attachment style, chronic pain, and depression, Meredith, Strong, and Feeney (2007) found that those with chronic pain and secure attachment had a lower risk for depression than those with insecure attachment. When investigating the nature of the patient-physician relationship in an emergency room setting, Maunder, Lancee, Nolan, Hunter, and Tannenbaum (2006) found that only 2% of patients with secure attachment were perceived as “difficult” by ED physicians. And in a chronic pain population, secure attachment was found to result in lower levels of depression (Ciechanowski, Sullivan, Jensen, Romano, & Summers, 2003).

Those with secure attachment have the ability to express the negative feelings that often come with illness in a manner that does not alienate caregivers; they have the ability to see not only how illness affects themselves, but also the effect it has on significant others and healthcare staff; and they have the ability to request and benefit from the support of others (Hunter & Maunder, 2001).

Insecure Attachment

Simply stated, *insecure attachment* is a broad term used to describe those who are not securely attached. In patient populations with gastroesophageal reflux disease and inflammatory bowel disease, insecure attachment increased the risk for both diseases (Ercolani et al., 2010). In patient populations with chronic pain, it was discovered that insecurely attached individuals had an increased risk for chronic and migraine headaches (Savi et al., 2005), were at greater risk for developing generalized chronic pain, were less able to internally manage distress, were less able

to procure and maintain external supports, were less able to form secure therapeutic alliances, perceived more negative intent and evoked more negative responses from healthcare providers, and tended to sabotage therapeutic efforts (Meredith, Ownsworth, & Strong, 2008). In a large population of primary care patients presenting with physical complaints, Taylor, Mann, White, and Goldberg (2000) found that those with insecure attachment were psychiatrically distressed and more likely to ask for psychological help. In a population of women due to undergo surgery for breast cancer, there was a modest correlation between insecure attachment and strength of relationship between patient and surgeon (Pegman, Beesley, Holcombe, Mendick, & Salmon, 2011) and in end-stage cancer patients, there were lower levels of perceived support (Hunter, Davis, & Tunstall, 2006). In patients with migraines, there was a correlation between insecure attachment and an increased severity of depression, higher disability, chronic migraines, and more severe pain intensity (Rossi et al., 2004).

Interactive (positive other). In a study of HIV-positive patients, those with a more interactive relationship with others were in a more positive psychological state and better able to cope with their illness (Turner-Cobb et al., 2002).

High anxiety. The anxiously attached patient has little belief in his or her own capacity to cope with illness. These patients feel comforted by the presence of a doctor or a nurse but they are unable to maintain that sense of calm when left alone. The internal working model of an anxious patient predicts that a nearly constant distress signal is the best means of maintaining proximity to an attachment figure (Maunder & Hunter, 2001).

Primary care patients showed an increased risk for GERD (Ercolani et al., 2010), and IBD patients had disease activity that was inversely related to perceived social support and coping efficacy (Gick & Sirois, 2010). In patients with ulcerative colitis, more severe disease

was associated with more severe depressive symptoms (Maunder, Lancee, Hunter, Greenberg, & Steinhart, 2005). In a population of patients with chronic sinusitis presenting for endoscopic sinus surgery, there was increased mental distress, poor quality of life before and after surgery, and poor post-operative pain control (Saragusty, Berant, & Yaniv, 2010). Primary care patients were more at risk for depression, consulted general practitioners for psychological problems, and had more emotional disclosure without reduction in stress (Zech, DeRee, Berenschot, & Stroebe, 2006). In an experimental study of 30 healthy adults exposed to experimentally induced acute pain, participants reported lower levels of pain when there was a perceived empathetic observer (Sambo, Howard, Kopelman, Williams, & Fotopoulou, 2010). In healthy adults, those with anxious attachment are associated with high self-reported stress (Maunder, Lancee, Nolan, Hunter, & Tannenbaum, 2006). In an end-of-life cancer population, high anxiety predicted high distress Hunter et al., 2006). (Hunter, Davis, & Tunstall, 2006). And in an older adolescent population, those who had high anxiety had the highest systolic and diastolic ambulatory blood pressures in response to social conflict (Gallo & Matthews, 2006).

Support-seeking. Within the high anxiety dimension exists a support-seeking subgroup, with hallmarks of high distress and insatiable desire for the approval of others. In women undergoing a third-trimester abortion, those with the preoccupied attachment style were more likely to elicit confrontation behavior from others (Cozzarelli, Sumer, & Major, 1998). Women with alopecia and preoccupied attachment had increased anxiety related to hair loss (Schmidt, 2003). Female primary care patients with support-seeking attachment had the highest care use and cost (Ciechanowski, Walker, Katon, & Russo, 2002). In the context of self-care, preoccupied diabetic patients had a lower risk of HbA1c >8% but a general overreliance on others (Ciechanowski et al., 2004). The preoccupied primary care population has a higher risk for

Crohn's disease (Agostini et al., 2010) and are more likely to have chronic widespread pain, pain-related disabilities, and number of pain sites (Davies, Macfarlane, McBeth, Morriss, & Dickens, 2009), while the chronic pain population tends to have more frequent visits to healthcare providers (Ciechanowski et al., 2003).

Negative self. Those with a negative model of self are categorized as having a combination of the preoccupied and fearful attachment with high anxiety. Within this dimension of negative self model, female primary care patients reported the highest number of symptoms (Ciechanowski, Walker, et al., 2002); hepatitis C patients had the greatest number of medically unexplained symptoms (Ciechanowski, Katon, Russon, & Dwight-Johnson, 2002); and in diabetic patients, an increase of depressive symptoms was associated with a worsening model of self (Ciechanowski, Katon, & Russo, 2005).

The research strongly supports the fact that insecure and anxiously attached patients keep healthcare providers constantly engaged. This pattern of care-seeking is typical for those whose inner sense of inability (or negative model of self) drives them to depend on others. Inevitably, they find that the help of others is insufficient, which leaves them with near-constant anxiety and a relentless desire to be soothed. It is this group of patients who are often referred to as “clingy” and “needy” by the healthcare staff, and once patients become aware of this attitude in the staff, this may exacerbate their sense of distrust and anxiety (Hunter & Maunder, 2001).

High avoidance. At first glance, compulsively self-reliant, avoidantly attached patients are often not perceived to be problematic by the healthcare team as they seem undemanding and somewhat distant. The internal working model of the avoidant attachment style predicts that others are not reliable and that it is best to count on oneself and to avoid any degree of

dependence on another person who will let him or her down when the need is the greatest (Hunter & Maunder, 2001). Clearly, this becomes an issue when illness or injury occurs.

In a population of healthy participants, those with a high avoidance attachment style reported lower pain in the absence of an observer (Sambo et al., 2010); they had a less depressed affect and less emotional disclosure and presented with more severe physical problems (Zech et al., 2006); and they had a lower level of vagal tone as determined by poor ability to control heart rate (Maunder, Lancee, et al., 2006). In a highly avoidant diabetic population, relationships with healthcare providers were poor (Morris et al., 2009). Avoidant women have a higher risk for dyspareunia (Granot et al., 2011) and in avoidant women who have IBD, disease activity is associated with negative affect (Gick & Sirois, 2010).

Independent (negative other). Those with an independent attachment style are a combination of the dismissive and fearful types, as they tend to have a negative mental model of others. In diabetic patients with an independent attachment style, having a lower propensity to reach out to others was associated with higher mortality over a 5-year period (Ciechanowski et al., 2010); these subjects perceive a division of power between themselves and providers that threatens their ability to engage with the healthcare system (Ciechanowski & Katon, 2006); and diabetic patients with compounding depressive symptoms tended to benefit from collaborative care interventions (Ciechanowski, Russo, et al., 2006).

Self-reliant. As previously discussed, dismissive individuals tend to not trust anyone and to rely solely on themselves. In diabetic populations with dismissive attachment, there tend to be more missed scheduled office visits with healthcare providers (Ciechanowski, Russo, et al., 2006); higher HgA1C levels leading to 60% increase in retinopathy (Ciechanowski, Katon, Russo, & Walker, 2001); lower levels of exercise, foot care, and adherence to oral hypoglycemic

medications as well as poor relationships with healthcare providers (Ciechanowski et al., 2004). In addition, diabetic patients with dismissive attachment are highly sensitive to being controlled (Ciechanowski & Katon, 2006).

Often, the best way to identify this attachment style is to take a history. Patients with avoidant attachment will often provide an “incoherent” rendition of their illness, meaning that there will be little affective display, consequences will be downplayed, and attempts at empathy will be rebuked. They will not understand upset reactions from spouses or family, for example, due to their low capacity for reflective functioning. Furthermore, attention from doctors and nurses may be threatening (Hunter & Maunder, 2001). Self-reliant patients are much more inclined to resist their lack of control (Ciechanowski et al., 2004). This often leads to the rejection of medical advice, e.g., being noncompliant with medications or treatments (Ciechanowski et al., 2004; Ciechanowski & Katon, 2006; Hunter & Maunder, 2001).

Cautious. Patients with cautious or disorganized attachment styles are likely to have had aberrant relationships with pain and/or physical and emotional abuse. The internal working model for these patients is highly disorganized and unable to provide a reliable strategy when dealing with others. Histories are often difficult to obtain and hard to sort out. These individuals’ intense affective experience is dissociated and inconsistent (Hunter & Maunder, 2001). These patients combine both anxious and avoidant tendencies.

In an emergency department population, physicians perceived fearful attachment style to be the most “difficult” (Maunder, Panzer, et al., 2006). In the female primary healthcare population, those with fearful attachment demonstrated lowest healthcare use and cost (Ciechanowski et al., 2002). In patients with chronic pain, there was a higher frequency of depression and catastrophizing within the fearful category (Ciechanowski et al., 2003). And in

the context of diabetes, those with a fearful attachment style are highly attuned to indications of rejection (Ciechanowski & Katon, 2006).

These patients may want nothing more than to have the healthcare staff respond in a reliable and effective way, but they have little or no faith in them as capable of doing so. Due to this profound anxiety and deep mistrust of others, these patients often exert constant pressure on caregivers to deliver more care, while at the same time manifesting a rejecting manner as they are forced into a dependent role. This results in help-seeking behavior that is often exaggerated and accompanied by an angry dismissive attitude. This combination of help-seeking and rejecting behaviors frequently generates strong antipathy among healthcare providers. In the more extreme cases, these patients can be deeply upsetting to clinicians who resonate with the patients' despair on one hand and yet feel overwhelmed by it on the other (Hunter & Maunder, 2001).

Interventions and Recommendations for Insecure Attachment

The literature offers several suggestions for managing patients with different attachment styles. The three insecure styles are addressed separately.

Support-Seeking

The management of highly anxious patients follows directly from the attachment formulation. For this subpopulation of patients, healthcare providers must hold clear limits while still providing strong empathetic attention within those limits. Examples of this might include biweekly 15-minute scheduled appointments for outpatients or regular 10-minute nursing visits every two hours for inpatients. The goal for these patients is to provide the much needed reassurance before the patient asks for it. When done successfully, the healthcare provider

reinforces the idea that support will occur regardless of whether the patient complains of symptoms (Hunter & Maunder, 2001).

Another consideration when dealing with anxious patients is understanding that the patient needs the healthcare provider to act as an “external regulator” in order to decrease his or her distress. The only way to quell distress signals is to respond preemptively with contact. A successful regulator is reliable, consistent, unflappable, and genuinely concerned. Thus, showing up on time, staying engaged for the agreed-upon duration, and not giving into the urge to avoid the “needy” patient are recommended (Hunter & Maunder, 2001).

Self-Reliant

Managing avoidant patients requires a fundamental respect of their need for independence (Chiechanowski, Russo, et al., 2006). Healthcare providers must allow patients to set the interpersonal distance by respecting their need for space and sense of personal control (Ciechanowski, Russo, et al., 2006; Hunter & Maunder, 2001). Some examples of this include using the patient’s surname and title, sitting down when the patient is recumbent, or allowing an early discharge when it is safe to do so (Hunter & Maunder, 2001).

Cautious

For those patients with fearful attachment, the goal is to limit the degree to which the patient disorganizes the healthcare team, so that the team can maintain its function and be effective external regulators and providers. Thus, it is best to acknowledge hostility while still putting very clear limits around acceptable expressions of anger. Healthcare providers should clarify that there will be no inappropriate closeness and clarify what the patient can realistically expect from the staff. In addition, it is important to understand that these patients cannot afford to

be grateful as they believe that their care is dependent upon the relentless pressure they place on providers (Hunter & Maunder, 2001).

Interventions with the healthcare staff tend to be most effective when dealing with cautious attachment style. Explaining to the staff that these patients are lonely and desperate for contact yet unable to trust may help staff perceive a fearful patient as a challenge rather than as someone problematic. In addition, team meetings are essential to ensure adequate staff communication and allow staff to vent the inevitable frustration and anger they feel within a supportive team environment. Doing this allows some dispersal of staff reactions and reduces acting out of negative affect towards the patient. If possible, a select small group of staff should administer the majority of the care as this reduces the opportunity for staff-splitting (Hunter & Maunder, 2001).

Implications for Nursing

The biggest part of research on adult attachment theory exists in the medical literature, primarily the psychiatric literature. An extensive search of the literature showed only three nursing articles that made reference to adult attachment theory: a concept clarification of attachment in older adulthood (Cookman, 2005), a cross-sectional study exploring attachment styles in nursing students (Kaya, 2010), and a specialist nurse providing intervention for family members of patients with brain tumors (Spetz, Henriksson, & Salander, 2008). None of these studies addressed the significance of adult attachment theory to clinical nursing practice.

Adult attachment theory offers nursing a comprehensive developmental model with established associations with a wide range of illness behaviors, an explanation of why some patients may be more vulnerable to developing chronic health conditions associated with their illness behaviors, the capacity to predict specific needs and preferences of different patients, and

the ability to anticipate the likely responses to different therapeutic approaches (Meredith et al., 2008). It seems feasible that such an understanding of adult attachment theory could be of great clinical value to nursing practice as nursing deals directly with patients and their families (Meredith, 2009).

CHAPTER 3
EXPLORING ADULT ATTACHMENT STYLE
AND CONFLICT RESOLUTION STRATEGIES

Introduction

Multiple studies have suggested that communication with family members in the ICU is inadequate (Azoulay et al., 2005; Hickey & Leske, 1992; Wall, Curtis, Cooke, & Engelberg, 2007). Researchers have found that family members understand less than half of basic information about the patient's diagnosis, prognosis, or treatment (Pochard et al., 2001); family members experience increased anxiety and depression when they feel excluded from decision making (Azoulay et al., 2005); and half of family members of patients who died in the ICU reported conflicts with healthcare staff (Lilly, De Meo, & Sonna, 2000). Further studies have shown that PTSD-related symptoms in family members 90 days after their loved one's discharge or death were more common among those who thought that the information they received was incomplete (Lautrette, Darmon, & Megarbane, 2007). Interestingly, both the stressors and needs of families in the ICU appear to be fairly consistent across age and gender of the family member, relationship to the patient, and patient diagnosis (Hickey & Leske, 1992).

To address this gap in communication and support for families of seriously ill ICU patients, numerous strategies have been hypothesized and attempted. Most have been general approaches that offered a standard package of supports for all families; these showed modest but promising results (Campbell & Guzman, 2003; Dowdy, Robertson, & Bander, 1998; Lautrette et al., 2007; Schneiderman, Gilmer, & Teetzel, 2003; SUPPORT, 1995). However, inadequate

communication and family coping within the ICU environment remain challenging and pervasive.

A randomized trial of an inter-professional, multi-faceted intervention using a communication facilitator was conceptualized and conducted to improve communication among the ICU team and family members of critically ill patients. The study provided individualized support for families of these patients using adult attachment theory, mediation strategies, and best practices from family conference research. Two trained facilitators intervened with eligible families of randomly selected patients to provide support and improve inter-professional communication within the ICU team with the intent to improve the quality of palliative and end-of-life care for patients and their families. This project offered an opportunity to explore the use of individualized, targeted strategies for addressing communication needs of families of seriously ill patients and their healthcare teams.

The analysis of the data explored how the theoretical foundation for the intervention was reflected in the field note documentation used by the facilitators, who were trained in family attachment theory. In addition, the researcher explored the types of conflicts that facilitators reported that families encountered. The specific aims of this analysis were as follows:

- 1) Describe the attachment-theory strategies used in the intervention designed to improve family clinician communication in the ICU using communication facilitators trained in family attachment theory through a directed-content qualitative analysis of facilitators' field notes.
- 2) Describe the types of conflict and the mediation strategies used to address conflict, based on Moore's original framework on conflict resolution (2003), as identified in facilitators'

field notes during the implementation of intervention designed to improve clinician-family communication concerning the care of seriously ill ICU patients.

- 3) Explore the effect of attachment style on conflict type using the Thomas-Kilmann Conflict Mode Instrument (TKI; Thomas, 1976) and documented conflicts in facilitators' field notes during the implementation of an intervention designed to improve clinician family communication concerning the care of seriously ill ICU patients.

Design

This exploratory design used a directed-content analysis approach with an existing dataset of 79 field notes collected during the multi-center, randomized trial of the intervention study. The intervention consisted of 1) in-person interviews by the facilitators with the participating family members to discuss the family's concerns, questions, needs, and unique communication characteristics; 2) pre-conference meetings led by the facilitators with the involved physicians, nurses, and other clinicians during which a brief summary describing the family's concerns, questions, needs, and unique communication characteristics was presented and discussed; 3) the facilitators' participation in the next scheduled family conference; and 4) follow-up by the facilitators with the family throughout the patient's ICU stay.

Family members were eligible to participate if they were 18 years or older and had enough English comprehension to complete informed consent and study materials. Exclusion criteria for family members included legal or risk management concerns (as determined by the confirming clinician), psychological illness or morbidity, and physical or mental limitations preventing ability to complete questionnaires. Subjects were randomized to either the control or intervention group. Facilitators interacted with the intervention group families during the patient's stay in the ICU and immediately following any transitions to acute care.

Theoretical Framework and Analytic Approach

Two important theories underpin this analysis: adult attachment theory and conflict theory. Adult attachment theory provides a conceptual model for understanding and working with the preferences of patients and families as well as communicating with or relying upon others in an individualized way to achieve better outcomes. Conflict is a ubiquitous phenomenon in healthcare. Power differentials, both among the healthcare team and between the team and patient or family, the stress of hospitalization, and the high stakes surrounding critical illness, all set the stage for conflict. Mediation strategies have been proposed as a mechanism to address conflicts. This analysis examined conflict using both a conflict theory approach and mediation strategy approach. While there are many theories of conflict, Moore's (2003) triangle of satisfaction model was chosen for its applicability to healthcare. It is described below.

Adult Attachment Theory

Adult attachment theory (ATT) provides a useful framework for altering approaches with individuals to more effectively interact with their personal trait characteristics. ATT provides an understanding of how early developmental experiences with caregivers affect social processes, associated physiological stress responses, and health across the lifespan. Based on Bowlby's original attachment research (1965), Bartholomew and Horowitz (1991) developed a four-category classification system of adult attachment styles and suggested that these patterns may have implications for communication in interpersonal relationships. This system describes a model of view of self (positive and negative) as well as a model of view of others (positive and negative) resulting in four attachment styles: secure, self-reliant, support-seeking, or cautious as shown above in Figure 2.1.

Medical research has used attachment style to understand patterns of disease risk and illness behaviors as they pertain to overall health (Maunder & Hunter, 2001). For example, in patient populations with chronic pain, it was discovered that insecurely attached individuals are at increased risk for chronic and migraine headaches (Savi et al, 2005), are at greater risk for developing chronic pain, less able to manage distress, tend to sabotage therapeutic efforts, and are less able to form secure therapeutic alliances (Meredith et al., 2008). More specifically, attachment styles have been used to influence perception and quality of communication in healthcare settings. For example, in diabetic patients being treated for depression, attachment style is associated with both patient satisfaction with care and perceived quality of communication with the healthcare provider (Ciechanowski et al., 2002). Attachment style is also an important predictor of the quality of patient-provider communication and a predictor of the influence of this communication on health outcomes including glycosated hemoglobin levels, retinopathy, and death (Ciechanowski et al., 2001).

In summary, adult attachment style has been shown to be a powerful mediator in health and illness. Individualizing care delivery approaches to take into account a patient's attachment style shows promise for achieving better patient health outcomes, improved behavioral health outcomes, and increased satisfaction with care delivery.

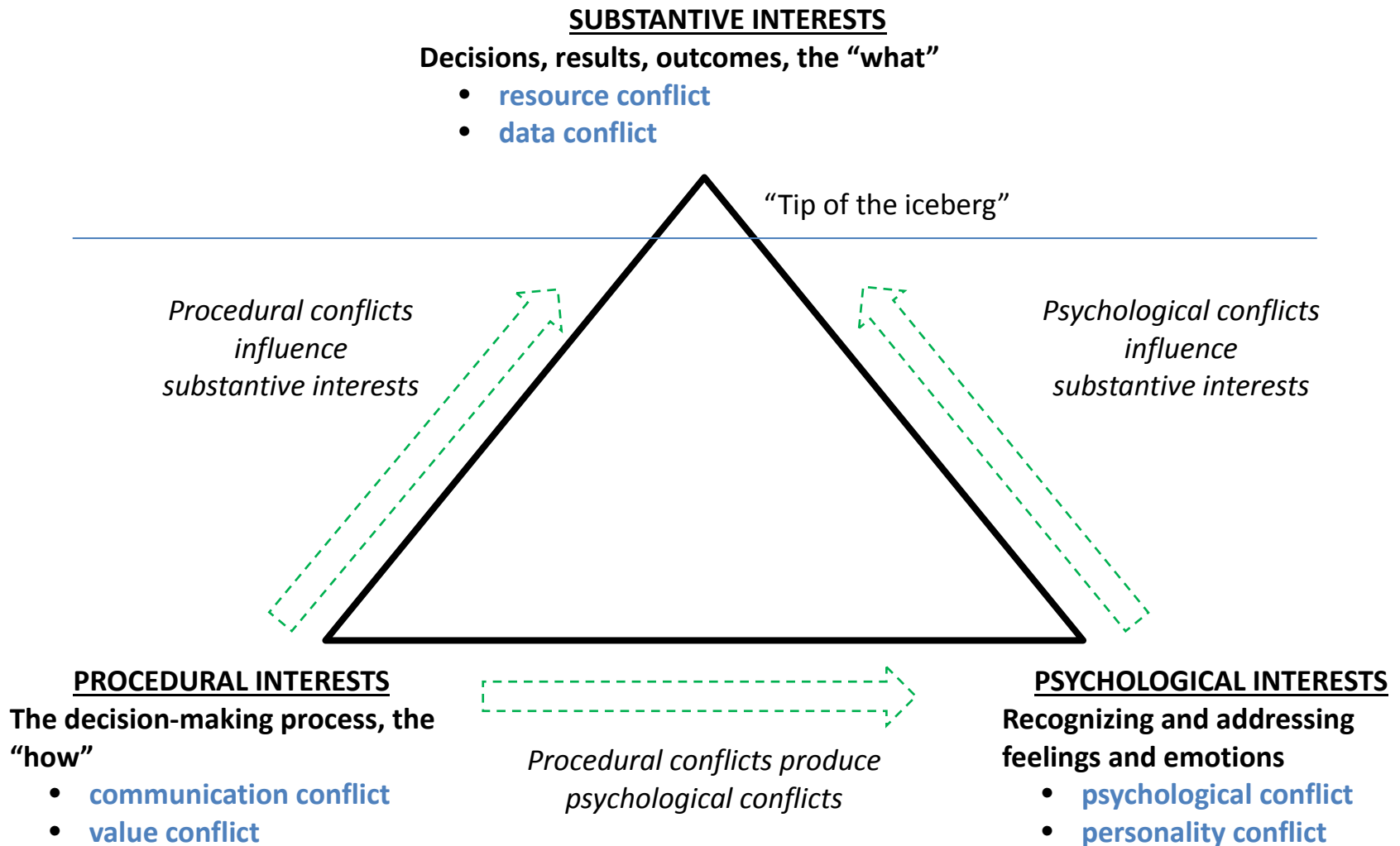
Conflict Theory

Conflict can be defined as a mental struggle resulting from incompatible or opposing “interests,” including the wants, needs, fears, hopes, concerns, or external or internal demands of a party (Furlong, 2005). Conflicts in the healthcare setting are somewhat unusual because of the “unavoidable trust” required of patients and their families (Pellegrino et al. 1991, p. 49). The

triangle of satisfaction is a simple yet thought-provoking model that focuses on the concept of interdependent interests in the context of conflict resolution (Moore, 2003).

The triangle model proposes that all interests can be mapped out into one of three broad categories (substantive, procedural, and psychological), and that these three categories are qualitatively different from each other (Moore, 2003) (see Figure 2.3 above). During a conflict, each interest requires different interventions and different approaches to be successful. Within the context of healthcare, conflicts that fall under substantive interests, sometimes referred to as “the tip of the iceberg” in the triangle model, can be solved and/or resolved (Furlong, 2005, p. 77). They are typically tangible issues, such as withdrawing life support or going forward with a surgical procedure, and are often the main focus for the HCT. However, when attention is focused primarily only on substantive issues, procedural and psychological interests have the potential to stymie any hope of a successful conflict resolution. This may help explain some patient and family dissatisfaction with healthcare provider communication. Procedural interests represent the ability to participate in the decision-making process (Gold, 2008). Conflicts associated with procedural interests tend not to be solved so much as negotiated on an ongoing basis (Furlong, 2005). In healthcare, procedural issues usually revolve around how patient information is shared and communicated. Similar to procedural interests, psychological interests cannot be solved (Furlong, 2005). Feelings cannot be negotiated or compromised. Instead, they must be expressed, listened to, acknowledged, processed, and ultimately let go when and if they are satisfied (Furlong, 2005) (see Figure 3.1).

Figure 3.1.
The Satisfaction Triangle: Interdependent Interests and Corresponding Conflicts



Understanding the various types of conflicts provides only a partial solution to the complexities of conflict resolution. The Thomas-Kilmann Conflict Mode Instrument (TKI; Thomas, 1976) assesses an individual's behavior in conflict situations. Thomas (1976) found that individuals respond to conflict along two basic dimensions: *assertiveness*, the extent to which one attempts to satisfy his or her own concerns, and *cooperativeness*, the extent to which one attempts to satisfy the other person's concerns. These two dimensions of behavior have been used to define five basic methods of dealing with conflict: competing, accommodating, avoiding, compromising, and collaborating (Thomas, 1976) (see Figure 3.2).

Description of Data

Field notes were handwritten daily by two facilitators (an experienced ICU nurse and an experienced social worker) and were intended to be used as a real-time communication tool between the facilitators to convey such pertinent information as patient status, family concerns, family attachment styles, conflicts, interventions, and results from family conferences. The field notes were reviewed, edited, de-identified, electronically transcribed, and stored on a secure external hard drive. The length of the field notes varied from 1 to 15 pages of text and spanned time intervals from one day to 12 weeks.

Field note data were recorded for 79 intervention families recruited between 2009 and 2013 from three sites. Sites included one large tertiary-care teaching hospital and two smaller trauma centers.

Relationship Styles Questionnaire Assessment

All enrolled family members completed a pen-and-paper baseline survey to determine predominant attachment style: secure, support-seeking, self-reliant, or cautious. The Relationship Styles Questionnaires (RSQs) were distributed by the facilitators shortly after family enrollment. Brief, validated versions of the original 30-item RSQ were used in this study, which were derived from Hazan and Shaver's (1987) attachment measure, Bartholomew and Horowitz's (1991) Relationship Questionnaire, and Collins and Read's (1990) Adult Attachment Scale. All family members received the RSQ. For this analysis, the attachment style of the primary family member, defined as the person with whom the facilitators had the most contact, was used in the analysis.

Human Subjects Approval

All study procedures were approved by the University of Washington Human Subjects Division and the institutional review boards of the three participating hospitals.

Data Analysis

This study used two existing theoretical frameworks, adult attachment theory and conflict theory, to create an initial coding scheme for use with a directed approach to qualitative content analysis. A directed-content analysis uses existing theory or prior research findings to influence the initial approach to coding (Hsieh & Shannon, 2005). First, the investigator (HZB) read through the field notes for the narrative story. Initial coding was done to capture patient situation characteristics, family characteristics, intervention barriers, and action plans. Initial categories were re-examined continuously to promote clustering around common themes. Once this occurred, the field notes were coded for strategies used with families that addressed communication and coping based on AAT. Finally, field notes were coded for instances of conflict and cause of conflict based on conflict theory. A coding manual was created for reference while coding the field notes (see Table 3.1). Coding at all stages was iterative; as data emerged that could not be coded by the developed coding scheme, new codes were added and existing codes were refined.

Table 3.1

Directed-Content Analysis Coding Scheme

CODE NAME	DEFINITION OF CODE	FREQUENCY TOTAL # of Codes = 4,921
CODES DERIVED FROM ATTACHMENT THEORY		Total = 3,516
Encourage participation, input	Identifying ways that involve more participation in decision-making and discussions to help develop sense of control.	271
Self-care enhancement	Identifying and assisting with issues such as eating, sleeping, support systems, life stressors outside of hospital environment (work, family, money)	362
Information translation	Providing assistance with understanding medical terminology, context of patient condition as it relates to expectations, roles of HCT, who does what	561
Acknowledge concerns	Offering reassurance, validating feelings, normalizing, offering feedback, repeating	659
Allow for expression	Allowing a safe, non-judgmental space for feelings to be expressed	1187
Follow through	Consistently following through with what is said in a timely manner	371
** Admit uncertainty	Admitting that there may be no "right" answer	48
** Reassure re: patient comfort and/or safety	Emphasizing the priority of patient comfort and well-being	57
CODES DERIVED FROM CONFLICT THEORY		Total = 220
Resource	Parties perceive that there is not enough of a resource to go around.	3
Data	Parties do not agree on what happened; perceptions of events, causes, or results are at a variance.	73
Communication	Parties have a misperception in communication or an actual miscommunication, verbal and/or non-verbal.	65
Value	Parties perceive differences in what is valued; what should be valued; what is "right," "good," "fair," or "important;" or when parties try to impose their values on others.	50
Personality	Different personalities within parties grow to be intolerable, usually due to differences in communication styles, values, personal expectations, and roles.	24
Psychological	Parties perceive that their psychological needs are incompatible and there is no way to address both parties' needs simultaneously.	5

** New code developed during analysis process.

(N = 79 field notes; average number of codes per Field Note = 62)

Adult Attachment Theory

Initial codes were developed through two processes. First, materials by an expert in adult attachment theory were used to identify key goals in trained facilitator interactions based on attachment style. Specifically, key goals were developing a sense of control and encouraging participation for those with the *self-reliant* relationship style, providing consistent listening to increase support and decrease the need to seek outside support for those with the *support-seeking* relationship style, and building trust and drawing out questions and concerns for those with the *cautious* relationship style.

Next, open coding occurred with two field notes to identify strategies recorded by the facilitators to describe their interventions with family members. This open coding resulted in six facilitator interventions that were directed toward addressing family members' needs in ways that were sensitive to their attachment style: 1) *encourage participation* by identifying ways to increase participation in decision-making and a sense of control; 2) *self-care enhancement* by identifying and assisting with issues such as eating, sleeping, and life stressors such as work, other family members, or financial concerns; 3) *information translation* by providing assistance with medical terminology, understanding the patient's condition or the roles of the HCT members; 4) *acknowledge concerns* by offering reassurance, validating feelings, normalizing the ICU experience, offering feedback; 5) *allow for expression* by creating a safe, non-judgmental space for family members to express feelings; and 6) *follow through* consistently through with what was said or promised in a timely manner.

Two additional codes were developed during the analysis process for a total of eight codes representing actions taken by facilitators in response to family members' identified attachment style: 7) *admitting uncertainty* or that there may not be a "right" answer, and 8)

reassuring patient comfort or reassuring the family that the patient is comfortable and safe, including emphasizing the priority of patient comfort and well-being as an overriding goal.

Conflict Theory

Trained facilitators used resource materials created by an expert in mediation theory to assist families with resolving conflicts and communication. Using the triangle of satisfaction as the theoretical model (Moore, 2003), six causes for conflict were identified using these materials (see Table 2): (1) resource conflict occurs when there is a perception that there is not enough of a resource to go around; (2) psychological conflict occurs when two parties perceive that their psychological needs are incompatible; (3) value conflict occurs when there is a perceived difference in what is valued, what should be valued, what is “right,” “good,” “fair,” or “important,” or when parties try to impose their values on others; (4) data conflict occurs when there is a disagreement on what happened or when perceptions of events, causes, or results differ; (5) communication conflict results from a misperception in communication or actual miscommunication; and (6) personality conflict results from underlying differences in communication styles, values, personal expectations, and roles (Gold, 2008). These six causes of conflict are conceptualized within Moore’s triangle of satisfaction in such a way as to illustrate the complex relationships of interests and conflicts.

Data Analysis

Data were directly coded in Dedoose, a software interface designed to analyze qualitative, quantitative, and mixed methods research data. Analyses were performed to explore differences in types of conflicts and attachment strategies used by the facilitators based on the presence of a particular attachment style within the family group.

To ensure trustworthiness, identified conflicts and mediation strategies were reviewed regularly by another investigator, who is an expert in qualitative methodologies to validate the classification system and study findings. Other techniques used to establish trustworthiness included prolonged engagement and interdisciplinary review and feedback.

Data included 79 field notes, which were coded using the developed coding scheme. In addition, further analysis focused on linking facilitator actions to the family's attachment style. Given the complexity of addressing multiple attachment styles represented within diverse family members, the attachment style of the primary family member, defined as the member of the family who had the most contact with the facilitators, was used. Due to missing RSQ data for 17 primary family members, this portion of the analysis was limited to 62 of the coded 79 field notes.

Among the 62 field notes with data available describing family member personal characteristics and RSQ, three-quarters of the primary family members were women, most frequently wives, then mothers. In contrast, men were more likely to be either husbands/domestic partners or adult sons. Among these 62 primary family members, approximately half (30) were identified as having a secure attachment style. The next most common style was self-reliant (21) with approximately the same number of family members endorsing either cautious (6) or support-seeking (5) styles (see Table 3.2).

Table 3.2

Demographics

Characteristics	Main family member: (N = 62 (%))
Sex	
Female	45 (72)
Male	17 (28)
Relationship to patient	
Spouse/domestic partner	30 (48)
Parent	15 (24)
Adult child	14 (22)
Adult sibling	3 (5)
Identified attachment style	
Secure	30 (48)
Support-seeking	5 (8)
Self-reliant	21 (34)
Cautious	6 (10)

Results

The results of the analysis exploring techniques that facilitators used to improve family-clinician communication in the ICU based on attachment style are presented first. The results of the analysis exploring conflicts and conflict resolution are presented second.

Adult Attachment Theory Results

Six facilitator attachment-theory-based strategies were initially identified in the field notes: encourage participation, self-care enhancement, information translation, acknowledge concerns, allow for expression, and follow through. However, during the iterative coding process, two additional strategies were identified: admit uncertainty and reassure patient comfort. While all eight strategies were used with family members, facilitators used these strategies specifically in response to family members' attachment styles. Each attachment style is described below with examples of strategies used to improve communication.

Strategies used with secure attachment style. Secure attachment style is associated with a positive view of self and others and a willingness to develop collaborative working relationships. In the excerpt below, the facilitator was interacting with an adult daughter of the patient, who was identified as having a secure attachment style. The facilitator's interactions with this family were complex yet concise.

I asked them how they were feeling about the [family] conference and DaugL said "nervous." I asked what she was nervous about and she said that she knew her mom was very sick and she wasn't sure what to expect in the meeting. I asked if it would be helpful to know who was going to be there and what the format would be. She and SonA said yes. I explained which clinical teams would be represented and that the format would most likely be similar to the previous meeting. DaugL said, "So it will be an update then?" I said that yes the team would recap what they know about her mother's condition, about the cancer, and that there are not any curative treatments they can do. She asked what palliative care is and if it is like "comfort care." I said that it is comfort care in that they would work very hard to make sure that her mom is comfortable and peaceful...I said that also the team was going to want to talk about the goals of their mom's care and making decisions that would keep her comfortable. DaugL said, "Oh, so my mom will be at the meeting too then." I clarified that her mom was still too sick to make her own medical decisions as far as I understood. Both DaugL and SonA seemed surprised by this and thought that the patient was communicating well enough to be a part of any decision-making conversations. I said that they would want to ask the doctors about this in the conference, but that they might be asked to speak for their mother in terms of what she might want or not want to have done at this point.

In this interaction, the facilitator *allowed for expression* in that the daughter was given the opportunity to share the fact that she was nervous; *acknowledged concerns* by asking the daughter if she would like to know more about the family care conference in order to alleviate her nervousness; provided *information translation* in regards to who would be at the family conference, what types of things would be discussed, and what "palliative care" is; *reassured patient comfort* by reminding the daughter that comfort is the common goal of the healthcare team (HCT); and *encouraged participation* so that the daughter felt as though she was involved in the discussion of the patient's wishes.

Strategies used with support-seeking attachment style. Support-seeking attachment style is associated with low self-esteem, high negative affect, and overreliance on others. In the excerpts below, the facilitator describes interactions with a husband who was identified as having a support-seeking attachment style. The facilitator allowed the husband to express his feelings and acknowledged his concerns about feeling overwhelmed.

I spent approx 1.5 hours talking with HusbM...He talked about how overwhelming it all is and how every day there is something else wrong. He has a hard time balancing his responsibilities. He feels too stressed out to be the primary caretaker for their son and has argued with his mom about what she is doing to help because he mostly just wants her to watch SonK. He feels bad that he isn't being a "good father" but he just doesn't feel capable. On the other hand, he feels bad that he isn't with [the patient] all the time, too.

This note describes the family member's needs and the facilitator's perception of his coping. The facilitator *allowed for expression* of the husband's feelings of being overwhelmed and stressed with the responsibilities of being present for his wife and still being a "good father" to his young son.

We went and found an empty room where we could have a private conversation...HusbM looked completely worn out. I asked if he would like a cup of coffee and he said that he had been having ulcers and couldn't do any caffeine. I relayed my impressions to HusbM and asked how he was coping. HusbM became teary and said "Not well." He said that he feels guilty that he hasn't been coming to the hospital more often but that it has been hard finding childcare for his son. Also the four-hour round trip traveling has been wearing on him. He feels that he needs to do more and more with less personal resources. ... I reflected back to HusbM all the things he had mentioned he had on his plate. I asked him what he would tell a friend who was trying to juggle so many things. HusbM smiled and said that he would tell his friend "something has to give." I agreed and said that you can't do more with less. I asked if he wanted to talk through his priorities and figure out where he could pull back. He said that would be helpful and that until that moment he hadn't thought about needing to make these decisions; somehow if he just kept trying hard enough, he'd make it work. We outlined his responsibilities to his son, his wife, his friends/community, and himself.

The facilitator's note details specific steps taken to support this family member. In this interaction, the facilitator continued to *allow for expression* of guilt, *followed through* with

concerns about coping with multiple responsibilities, and addressed *self-care enhancement* in terms of prioritizing needs and giving others specific instruction for how best to help him through this difficult time.

Strategies used with self-reliant attachment style. Self-reliant adult attachment style is associated with a low level of trust of others and compulsive self-reliance. In the excerpts below, the facilitator was interacting with a wife who was identified as having a self-reliant attachment style. The facilitator allowed the wife to express her feelings after a confrontation with a nurse caring for her ill husband.

Today's conversation was about when [the patient] was captive in Cambodia and was rescued by a Black Panther. She also described his pre-existing injuries. She talked about one nurse who seemed to think that she knew [the patient] better than WifeK knows him. She wasn't paying attention to WifeK when she said, "I think he's in pain." Her feeling was that the nurse felt she knew the patient better than WifeK. WifeK states, "I have been with him for seven years so I think I know when he is in pain. She has been with him three days of the 12 he's been here and she thinks she knows him better?"

The facilitator went on to describe an attempt to *follow through* with one of the wife's concerns by *encouraging participation* in her husband's care.

She is without resources and lacks the skills to seek out assistance. She doesn't expect her input to be valued. For example, the patient had a blanket on yesterday, then he was incontinent and had to be cleaned and they didn't put the blanket back on him, so she put a small cover on his legs because they were cold. When he had to be cleaned again, the nurses, again, left his legs uncovered. She just kept covering him up and the nurses kept uncovering him but she did not ask them to keep him covered or tell them she thought he was cold. When I suggested that maybe he didn't feel as cold to the nurse because they had gloves on, she stated that he was so cold they could feel it through the gloves. So, I suggested that she tell them she thought he was cold and then maybe they would cover him. She just sort of rolled her eyes at me and said that now he has a fever. She is kind of blaming the pneumonia and the fever on him being left cold.

In this interaction, the facilitator attempted to develop some level of trust between the family and the healthcare team by encouraging the family to communicate with the nurses. A

self-reliant attachment style will tend to want to be in control at all times. Participation in some aspect of patient care may allow for a sense of increased control.

In the following excerpt, the facilitator tried repeatedly to engage the wife of a patient and was consistently met with avoidance until the wife managed to build up enough trust in the facilitator to express a concern.

Then she [wife of the patient] said that she was concerned about how she was going to keep people from visiting him [the patient] on the floor. She said his being in the ICU could keep some away, but some people were just chomping at the bit to come and see him... I suggested that they post some suitable visiting hours for people to come...And, then, I got a huge shock! She said, "Thank you. That was such a helpful idea." I said, "Well, I am glad because I do not feel like we have helped you much." And she said, "Well, how could you? I have been avoiding you." I laughed and said, "I noticed, but that was fine because we wanted to be of assistance to you, not be some other task you have to do." She went on to say how overwhelmed she has been with calls, visits, etc. I felt this was a wonderful conclusion to his ICU stay because I had felt avoidance, even hostility from her at times; certainly the avoidance was obvious. It was nice to be able to openly acknowledge her avoidance and to absolve her of any "guilt or blame" and to reinforce that it really is all about her and meeting her needs, not ours.

For the self-reliant family member, accepting help, even from the facilitator, is fraught with difficulty. The tendency to avoid is exacerbated during times of stress. The facilitator understood this tendency yet continued to reach out with the hope that being there during a moment of need would provide a small window of opportunity in which to begin to build a relationship. In this case, persistence paid off.

Strategies used with cautious attachment style. Cautious attachment style is characterized by an association with approach-avoidance behavior and a low level of trust of others. In the excerpts below, a facilitator described interacting with a husband who was identified as having a cautious attachment style. The facilitator allowed the husband to express his feelings after some communication challenges with the healthcare team.

HusM also said that he is "hoping" that the teams talk to one another but has had some experiences that make him wonder. One is around blood thinners. Neurology came by

and said that she needs to be clotting more and then the intensivist came by and said that they should put her on blood thinners. He said that didn't make him confident in their communication and he asked them about it. He said Dr. Jf said, "Oh I guess we should talk to Neuro then" in an exasperated tone. I asked if that affected his trust in the team and he said yes. He gave an example about how he had to tell multiple team members that his wife was allergic to heparin before someone would agree to not give it to her and chart it. I asked if they had talked about a family meeting and he said that Dr. Jf had mentioned having one tomorrow afternoon. I explained the purpose of such a meeting and HusM said that would be a good thing to make sure they are all "heading in the same direction." He would like Dr. R to be there. I said I would make sure that Dr. R knew about it. We also talked about Social Work being there; he felt it would be good as he needs to start thinking about paperwork and insurance and financial decisions. He said he would like it if I could be there.

Later, just before a family care conference, the facilitator tried to encourage more participation from the patient's husband based on feelings and wishes he had expressed previously.

I went to the unit at 11:30 am to try and talk with HusM prior to the family conference...I just had to briefly ask HusM if there was something specific he wanted from me. He said for us to play it by ear. My unspoken question for him was that he has told me some pretty specific spiritual stuff that he asked me not to share because he doesn't want the staff to view him as "woo-woo." I have told him that I think if he could get to the point of trusting hospital staff enough to share his and [the patient]'s beliefs that maybe they wouldn't keep after him to withdraw support. He isn't there yet.

In this field note, the facilitator described using *encourage participation* in response to the husband's cautious attachment style. The negotiation around what can, and cannot, be openly shared by the facilitator with the healthcare team is notable.

Facilitators reported having the most difficulty managing cautious family members than any of the other insecure styles. In the following excerpt, the facilitator shares a newfound understanding of the dichotomous nature of a cautious attachment style.

It was interesting to be in the family conference with HusM. I have found him to be very engaging, open, talkative, charming -- really delightful to spend time with...in the [family care] conference, he was very different. He had his coat on with a hand in the pocket. He was very subdued. He offered no explanations for what he was deciding, no insight into his thought processes, just "the trach is what we are going to do." I gained an interesting perspective and feel I have a better understanding of why staff are so slow to accept his

decisions... What he wants is for [the patient] to be “preserved the opportunity” to heal herself. He wants to do this with the least interventions possible because she doesn’t like medication.

This family member often refrained from communicating with members of the HCT for fear that he would be judged. He was perceived to be “difficult” by some members of the HCT while other members of the HCT found him to be very “engaging.” This is a classic example of the cautious attachment style.

For another cautious family member, the facilitators required assistance from the primary investigator of the parent study.

Wife is struggling to accept the change in her family composition. Nurses and family seem to not be meshing well....Fac2 and I place a call to [study investigator] re: this case because we are not sure how to proceed... WifeW seems to lack the cognitive ability to fully engage with us or to have insight into some of the complex issues she is facing.

The suggestions were considered and then trialed by the facilitators with the following results:

[Study investigator]’s idea to focus her on a limited number of concerns was very successful! I was able to get her to formulate a plan. It will be interesting to see if she follows through. Also, resentment, anger, disappointment are all evident in her statements today. She and [the patient] had agreed that he would take care of her for a change and now that is not happening.

The above examples illustrate how challenging those with cautious attachment can be. The vacillation between acceptance and avoidance can be time-consuming, frustrating, and exhausting for HCT members.

Frequency of Facilitator Strategies Based on Attachment Style

The eight strategies used by facilitators differed based on the family member’s attachment style. For field notes in which the primary family member’s attachment style was known (62 field notes), the use of each of the eight facilitator strategies could be qualitatively explored (see Figure 3.3). For this sub-analysis, facilitator strategies were examined in two ways.

First, the relative frequency of the eight strategies are compared across attachment style cluster. Second, each attachment style cluster allows relative comparison of the use of each strategy based on specific attachment style. To account for unequal group size, data are normalized within attachment style clusters (e.g., secure=30 family members, self-reliant=21 family members, support-seeking=5 family members, and cautious=6 family members).

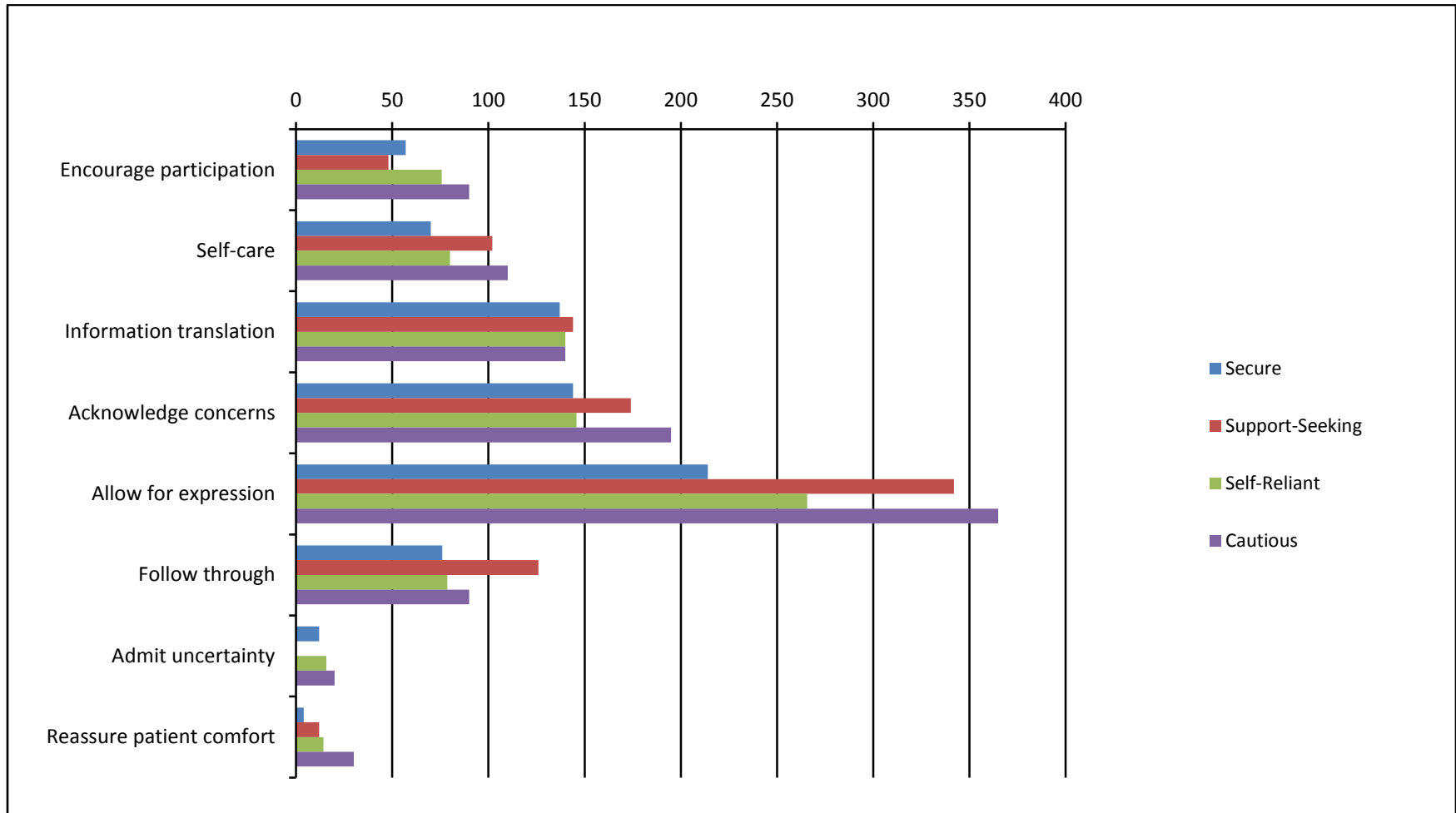
Overall, 1910 coded occurrences of facilitator strategies were identified in the 62 field notes. Because field notes varied considerably in complexity, length, and structure, multiple attachment-theory based codes were often used within a single field note, representing complex, and often longitudinal, interactions between the facilitator and family member.

The most frequently used facilitator strategy was *allow for expression* (620 coded occurrences). Based on field notes, facilitators appeared to use this strategy more frequently with insecure attachment styles, particularly with the support-seeking and cautious attachment styles. The next most frequently used strategy was *acknowledge concerns* (366 coded occurrences). Again, facilitators noted using this strategy more often with insecure attachment, particularly with the support-seeking and cautious attachment styles. The third most commonly noted strategy was *information translation* (325 coded occurrences). Facilitators noted using this strategy similarly for both secure and insecure attachment styles. The fourth most common strategy was *follow through* (197 coded occurrences). Facilitators noted using this more frequently with insecure attachment, particularly with the support-seeking attachment style. *Self-care* was noted by facilitators in a similar frequency as *follow through* (188 coded occurrences). However, facilitators noted using this strategy particularly with both support-seeking and cautious attachment styles. Facilitators also noted using *encourage participation* (152 coded occurrences), particularly with insecure attachments who were self-reliant and cautious styles.

Finally, the strategies that were noted least frequently in the field notes were admit uncertainty (35 coded occurrences) and reassure patient comfort (27 coded occurrences). While admit uncertainty was found in both secure and insecure attachment styles in the field notes, reassure patient comfort was noted more often for insecure attachment, particularly cautious attachment style.

Figure 3.3

Frequency of Facilitator Strategies Used in Response to Primary Family Member Attachment Style



Note. Attachment style clusters are normalized to account for unequal group sizes.

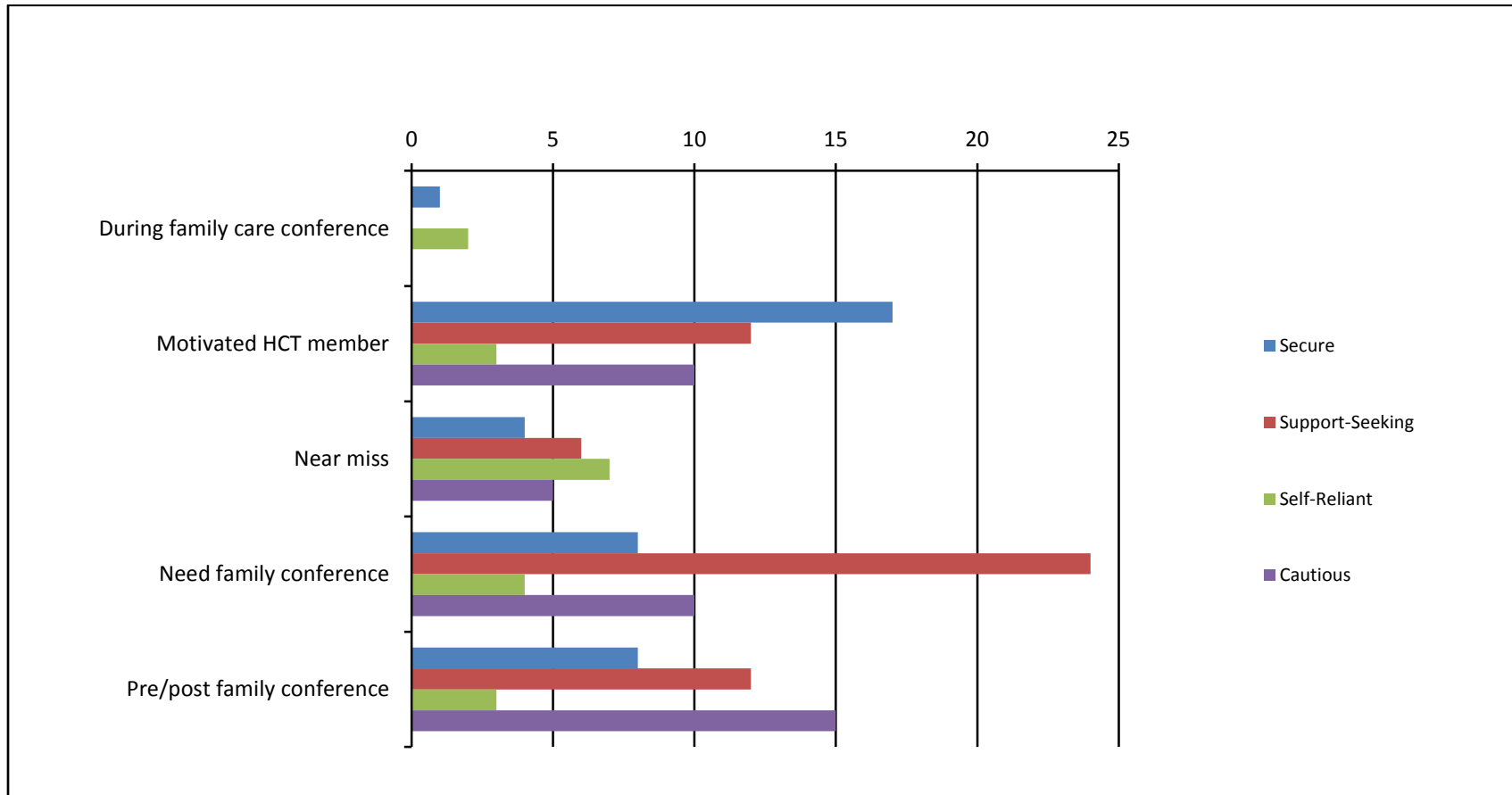
In sum, facilitators appeared to use all strategies with both secure and insecure attachment styles. Some strategies were noted more frequently in the field notes than others. While there were small differences between secure and insecure attachment styles, based on the documentation in the field notes, facilitators appeared to use all strategies in roughly similar patterns regardless of secure or insecure attachment styles.

Facilitator Collaboration with the Healthcare Team

In addition to intervening with family members using attachment-based mediation strategies, facilitators often collaborated with members of the HCT to provide additional support to families of these critically ill patients. Five trends were noted from this analysis (see Figure 3.4). First, facilitators reported advocating for family care conferences with the HCT for family members with a support-seeking style in twice as many field notes as any other attachment style.

Figure 3.4

Frequency of Facilitator Collaboration with Healthcare Team in Response to Primary Family Member Attachment Style



Note. Attachment style clusters are normalized to account for unequal group sizes.

Second, based on the field notes, facilitators had more collaboration with the members of the HCT both before and after a family care conference when family members had cautious or support-seeking attachment styles versus other styles. Third, when family members had self-reliant attachment styles, there was little evidence in the field notes of any type of collaborative effort between the facilitator and the HCT. Fourth, the field notes had very few notes indicating that facilitators collaborated with HCT members during family care conferences. Finally, HCT members were more inclined to collaborate with facilitators when family members had a secure attachment style.

In the following excerpt, the facilitator interacted with the wife of a critically injured patient after a motor vehicle accident. The wife endorsed a secure attachment style.

WifeW reported that her communication with the medical team has been very positive. She knew the doctors' names and said that they always make a point to share information with her. She gets most of her information at rounds. The nurses have also been helpful in answering questions and explaining procedures.

The facilitator noticed one of the ICU nurses listening and inquired about a family conference regarding the patient's recent leg amputation.

I left the family and went to talk to their nurse, NurseC. I asked NurseC if he knew anything about a visit from Dr. Sm and Ortho....I shared that the family was concerned about the same thing [telling the patient that he lost his leg] and that Dr. Sm and NurseMS from Orthopedics had been contacted about doing a consultation with WifeW. NurseC thought that was a great idea and called Dr. Sm right away. They set up a consultation for later that same day. We then told WifeW it was scheduled and she looked visibly relieved. I thanked NurseC for arranging that and gave him a coffee card. He said that it was an important consult and that things sometimes just fall through the cracks.

In sum, facilitators appeared to advocate for family care conferences and collaborate with the HCT prior to and immediately after family care conferences for family members with support-seeking attachment styles. Self-reliant family members experienced the least amount of collaboration between facilitators and the HCT in all categories. Interestingly, HCT members

were more inclined to collaborate with facilitators when family members had a secure attachment style.

Conflict Theory Coding Results

Evidence for a total of 220 separate conflicts were identified in the 79 field notes. Using Moore's triangle of satisfaction, these were categorized as *substantive* (what needs to be resolved), *procedural* (how can it be resolved fairly), or *psychological* (are the emotional needs and feelings recognized and addressed). Procedural interests were the most common issue remarked upon in the 220 incidences of conflict recorded in the field notes, followed by substantive and then psychological interests.

Substantive interest interventions. Substantive interests are associated with decisions, results, or outcomes. Conflicts involving these types of interests often require brainstorming, developing options, bargaining, and occasionally compromising (Furlong, 2005). In the following excerpt, the facilitator asked the daughter of a critically ill patient to describe a resource conflict with a member of the HCT.

I asked DaugKy how it was going and she proceeded to tell me how awful the morning had been...A doctor came in and told her that she had two days to get her father in a nursing home. He said that he [the patient] was not a candidate for rehabilitation at [the hospital] because he wasn't going to be able to be productive in the long term! She was just aghast and asked him if he was saying her father was too old to do rehabilitation. He backpedalled a bit, but still alluded to the fact that most of the people we rehabilitate are young traumas. She pointed out that her dad was a trauma too. She said she was crying when another doctor came in and asked what was the matter. She told her what the other doctor had said. This doctor reassured her that she was not going to have to get him out of the hospital in the next two days. DaugKy asked for a week. She said she wanted to get him to [another state] and they have a nursing home down there. She just has to be able to get him on the plane and fly down there. The second doctor had the social worker come in and talk with DaugKy.

This excerpt illustrates a difference in perception of resources available within the context of the productivity of the patient upon discharge. The conflict was resolved by another member of the HCT who offered other options.

Procedural interest interventions. Procedural interests are associated with the decision-making process. Conflicts involving these types of interests often require ongoing negotiation, transparency, and involvement of “new” participants (Furlong, 2005). In the following excerpt, the facilitator summarized a communication conflict involving the husband of a critically ill patient and members from the HCT.

In summary, in the meeting HusM felt that he made himself clear that he “wanted to buy time” for [the patient]. He feels that she is making progress in small ways even though the clinical teams don’t see the change as significant. He gave examples of her being “on the lowest vent setting” as progress. He said that he doesn’t “have his head in the sand” about the seriousness of her situation, but that right now he wants more time. He said that she hasn’t had much chance to recover from something that everyone is calling “devastating.” He understands that more decisions will come down the road...but feels that it will take significant time (3 months, 6 months) to tell what will happen. He felt that he explained this as best he could in the meeting and thought that they were having the start of a conversation about what to do. Later, the nurse alerted him that Dr .Jf had made the patient a DNR. HusM did not consent to this and felt that decision went against everything he had said in the meeting. He felt “set up” and “duped.”

This excerpt illustrates the false sense of participation felt by the family member resulting in a communication conflict. The husband continued to advocate for the patient and brought in a new participant, the nurse manager, in an attempt to ensure that the process would be fixed and the orders corrected. Perhaps most interesting is that this family member also self-identified as having a cautious attachment style.

The DNR order was removed from the chart after HusM complained. (He did not speak to Dr. Jf about this but to the nurse and nurse manager.) He has not spoken to Dr. Jf about it since then (and now Dr. Jf is not on service). This situation has further affected HusM’s trust in Dr. Jf and the clinical team. In the future he would like to make sure that someone from our study is at the family meetings to make sure he is being heard and that decisions are made that reflect his wishes. We asked if there was anything else we could do to help with communication and he said no. That he felt that the DNR was removed

and that for now they are just leaving the patient alone and that is fine with him. Dr. Jf is now off service and HusM hasn't yet talked to the new attending.

This excerpt demonstrates the complexity of conflict resolution as well as evidence of cautious attachment. The communication conflict with members of the HCT had further damaged an already fragile trust. However, it is promising that despite this breach in trust, the family maintained a level of trust with the facilitators. This suggests that attachment-mediated strategies used to improve family-clinician communication in the ICU and applied during times of conflict can be of benefit.

Psychological interest interventions. Psychological interests are associated with recognizing and addressing feelings and emotions. Conflicts involving these types of interests are best handled by not being judgmental, not minimizing or dismissing feelings, and not trying to bargain away feelings (Furlong, 2005). In the following excerpt, the facilitator observed a psychological conflict involving the daughter of a critically ill patient and everyone in the ICU waiting area.

DaugT looks very tired and she was also kind of "posturing." Saying things like "if they don't like the way I am, that is too bad, they can just..." in regards to her sister, the other family, and the liaison. She is adamant that she doesn't want to attend family conferences or talk with the doctors because she feels they don't have anything good to say and she doesn't want to hear more bad news.

In this excerpt, the conflict is not resolved, which is congruent with these types of conflict. In an attempt to help this family with decision-making, a family care conference was held and emotions escalated further.

The purpose of the conference was to get the family ready to make decisions on a possible DNAR and trach and PEG for the patient. The new attending (Dr. T) and the new neurosurgical consult (Dr. R) were in attendance, as was a social worker (SWF) and a nurse. Many family members came in and out during the time including PartD, DaugL, the three aunts, SILR, FAMI (DaugT's boyfriend), and nieces and nephews. It was very chaotic and very long (similar to the previous conference). Many of the nieces and nephews seemed unaware that the patient was in a coma and reacted very negatively to

that information. These reactions included crying, leaving the room, and threatening Dr. R verbally. Security was called in response to the verbal threats and intense anger of one nephew. No decisions were made at the meeting.

As noted above, attempts were made to bring in new HCT members with the hope that altering the process might allow the family to participate in making decisions for the patient. This family was unable to move past the psychological impasse despite efforts from the HCT and facilitators.

Causes of Conflict Results

Using Moore's conflict theory (2003) and concepts borrowed from mediation theory, data were coded according to the six causes of conflict and then according to the parties involved in the conflict (i.e., family-HCT, HCT-HCT, or family-family (see Table 3.3). The most common causes of conflict indicated in these field notes were resource, communication, or values issues. Interestingly, the most common parties involved in these 220 conflicts were families and the HCT caring for their family members (162 conflicts). Only five conflicts described conflicts within the family while the remainder described conflicts among the HCT members. The six causes of conflict are discussed below with supporting examples.

Resource-based conflicts. Resource conflicts address a perceived shortage of some type of need. All of the resource conflicts occurred between the main family member and the HCT or between members of the HCT. In the following resource conflict, the domestic partner of the patient described his concern that there was not enough staff available to care for the patient.

He expressed concern that there was an incident last night where he couldn't seem to get a nurse to respond. [Patient] was having a problem with coughing and with pain but DPartT couldn't find anyone, despite yelling in the hallway. Finally, [the patient]'s heart rate monitor alarm went off and also her O2 sat alarm and then people responded. The episode really freaked DPartT out because it took a long time for her to recover and his faith in the staff was shaken. He kept saying, "Where was everybody?"

Table 3.3

Frequency of Types of Conflict, Corresponding Causes and Involved Parties as Recorded in Facilitator Notes

Conflict Interests		Corresponding Causes of Conflict		Conflict Parties	
Substantive interests	76	Resource	3	Family-HCT	163
		Data	73		
Procedural interests	115	Communication	65	HCT-HCT	52
		Value	50		
Psychological interests	29	Personality	24	Family-Family	5
		Psychological	5		

Note: 200 separate conflicts identified in 79 field notes.

Another example came from the wife of a patient who described her concern over a physician refusing to run tests on the patient due to the cost.

She talked a lot about when [the patient] was at the other hospital. She feels he should have been transferred to [this hospital] the first day because his chest x-ray was totally whited out. She took the doctor materials about H1N1 and about what tests need to be done if the nasal swab comes back negative. [The patient] had two swabs test negative, but the doctor said the other test cost \$600 and he wasn't sending that. He also wouldn't send a lactate, a very basic step in managing sepsis. He ended up not sending [the patient] to [this hospital] until he was on 100% FiO2 on the vent and doing very badly. She feels very frustrated and thinks she may write a letter as a concerned citizen to complain about the hospital's care and treatment of [the patient].

Resource conflicts may present in various forms. As illustrated in the above excerpts, families perceived personnel and financial shortages. These perceptions further eroded trust in the HCT.

Data-based conflicts. Data conflicts involve disagreements on what has happened or a variance in perception of events, causes, or responses. All of the data conflicts occurred between the main family member and the HCT or between members of the HCT. In the following data conflict, the mother of the patient had a different perception than the nurses in regards to what was best for the patient.

I asked MomC how she was doing and she said something about how Dr. R asked her to trust us but she went on to describe how she felt uncomfortable leaving because some of the nurses didn't listen to her about ways to get his ICP down. Particularly, last night the nurse would not straighten his head and this has been shown to be highly associated with getting his ICP down. She was very frustrated because the doctors have emphasized this. It's written on the board to keep his head straight and she was present on day shift when someone didn't have his head straight, called the doctor for sustained elevated ICPs, and when the doctor came in and saw his head wasn't straight, they [the doctors and the nurses] got into an argument. So, she knows the doctors want his head straight and she knows that his ICPs go down when his head is straight and it's frustrating when the nurses won't listen to her.

The second case involves a data conflict between HCT members regarding best placement for the patient.

Attending physicians changed over the weekend. The family members had become attached to Dr. L and felt that he understood their mother's case and her history at the hospital. DaugL stated that Dr. L was very clear that he thought the patient should be transferred to a medical floor (rather than to Orthopedics) because of her ongoing needs for monitoring with diuresis. DaugL said that Dr. T (the new attending) wants to transfer the patient to an Orthopedics floor. DaugL stated that she informed Dr. T that her mother was supposed to be transferred to a medical floor but the attending did not agree with this.

The examples around data disagreements illustrate the pervasive nature of conflict between the HCT and family members. In these cases, the conflict over data appears in part to involve a power differential between the family member and the healthcare professional, whether a physician or nurse.

Communication-based conflicts. Communication conflicts involve a misperception in communication or an actual miscommunication. All of the communication conflicts occurred between the main family member and the HCT or between members of the HCT. In the following communication conflict, the wife of the patient described how a misperception in communication initially affected her trust in the HCT.

WifeM had a concern about something a nurse said about the patient's respiratory functions – which made her concerned that the patient was not getting good care. We cleared this up with the doctor. It was a case of a misunderstanding about which numbers

the nurse was talking about (PO2 vs. sats). WifeM is a nurse and so has a medical background/speaks the language, but we talked about how it is different when it is your loved one. She admitted that the information seems to go in one ear and out the other sometimes. She has been overwhelmed and is glad that FriendD has been with her to be another set of eyes and ears.

In another example, a family member misinterpreted a statement made by the HCT.

She was a little distressed because someone had expressed to [the patient]'s sister that his condition was "tenuous." The interpretation of this word was that his very grasp on life was tenuous and that he was more gravely ill than they had previously known. They spoke with the nurse and clarified that he was by no means expected to die. The nurse apologized for the person who passed along that "tenuous" comment, although she couldn't figure out who it would have been.

Communication conflicts were the most common type of conflict noted in the field notes.

The above examples of communication conflict illustrate the power of words and the degree of trust that families place on the words spoken by members of the HCT.

Value-based conflicts. Value conflicts are caused by perceived differences in what is important, right, good, or fair. Value conflicts occurred in all family and HCT combinations. In the following value conflict, the daughter of the patient had a different perception than the HCT regarding the "right" thing to do.

When the doctors arrived (Dr. R, Dr. Cr, and Dr. Ka), Dr. R started off by saying that they thought it would be a good idea to give him another 48-72 hours of antibiotics. DauV replied, "I think you are giving us false hope." She went on to explain how she thought he was suffering and questioned how Dr. R's recommendation could have changed in a day. He explained that the head CT does not explain the level of consciousness changes and that the decrease in mental status seemed to correspond with when he was diagnosed with pneumonia.

The second case involves a value conflict between the mother of the patient and a nurse.

The nurse imposed her personal values on the patient and they were significantly different from those of the family.

MomM reported that they had a very disturbing interaction with a nurse yesterday. According to MomM, the nurse came into the room while the family was at the bedside and proceeded to tell them (without solicitation) that they shouldn't be proceeding with a

planned facial surgery because it is “futile” and the patient will not have a good outcome regardless of any interventions that the doctors do. MomM asked the nurse why she was telling them this. The nurse said, “It looked like you were ready to hear the truth,” and that “The doctors won’t tell you the truth; they will keep on giving you hope when there isn’t any.” MomM said that this devastated the family, especially the grandparents. MomM also said that the manner in which the nurse told them this information seemed very inappropriate, without sensitivity, and that she didn’t even shut the door or the curtain.

As illustrated in the excerpts above, value-based conflicts often arose due to the ever-changing clinical scenarios of the patients. Such conflicts further eroded family trust in the HCT.

Psychological-based conflicts. Psychological conflicts involve the perception that psychological needs are incompatible between parties. All of the psychological conflicts occurred between the main family member and the HCT. In the following psychological conflict, the husband of the patient described a situation where his needs were incompatible with that of the physicians.

Another communication issue has been around HusM wanting the medical team to speak to [the patient] as well as himself. HusM believes that [the patient] is “in there” listening to what the team says and that it “pisses her off” when they talk about her “like a slab of meat.” He asked Dr. Jf to please say hello to [the patient] when he starts talking and to explain the major issues to both of them. I reiterated that it is important for HusM to feel that [the patient] is seen as a person and that she is a part of this process and communication, that she is not just a thing lying there. He said that was it exactly and that the nurses do that and some of the younger doctors and other services, but not the attendings. And he is worried that the younger doctors are learning their style from the attendings. I asked how his request was received and he said, “Well I’ve told him twice but he hasn’t yet included her.”

Personality-based conflicts. Personality conflicts occur when differences in communication styles, values, personal expectations, or roles grow to be intolerable. All of the psychological conflicts occurred between the main family member and the HCT, and the main family member and another family member. In the following personality conflict, a physician has an awkward interaction with the wife of the patient.

The doctor stood at the end of the bed and didn't say anything for the longest time. WifeJ and I were both looking at him expectantly. Finally, WifeJ greeted him and asked how he was. He said he was fine. She then asked how he thought [the patient] was doing. He again paused for an uncomfortably long time. WifeJ then said, "He is still stable, right?" The doctor replied, "That's one way to look at it." This was delivered with a very flat affect. The effect on WifeJ was one of alarm. She left her chair and walked toward him and asked what he meant by that. He replied, "Sometimes when I tell people that someone is stable, they think it means the person is making progress. And he is not making progress. He is still quite ill. And, while we haven't found the source of the bleed, he is still at risk for vasospasm for 14 days. So, in a way, he is stable but he is still quite seriously ill." He then paused again and was just looking at the monitor still at the foot of the bed...At this point, WifeJ sat back down. It was clear this doctor was not giving us any information and it was very unclear why he had even walked in the room...After he left, WifeJ rolled her eyes and said, "I don't expect doctors to have many social skills but I believe that one actually had his personality removed"... We sort of debriefed about how weird and alarming the whole interaction was and wondered what his point was. I told her I was glad she was able to realize that it was a personality flaw in the doctor and not a change in [the patient]'s status.

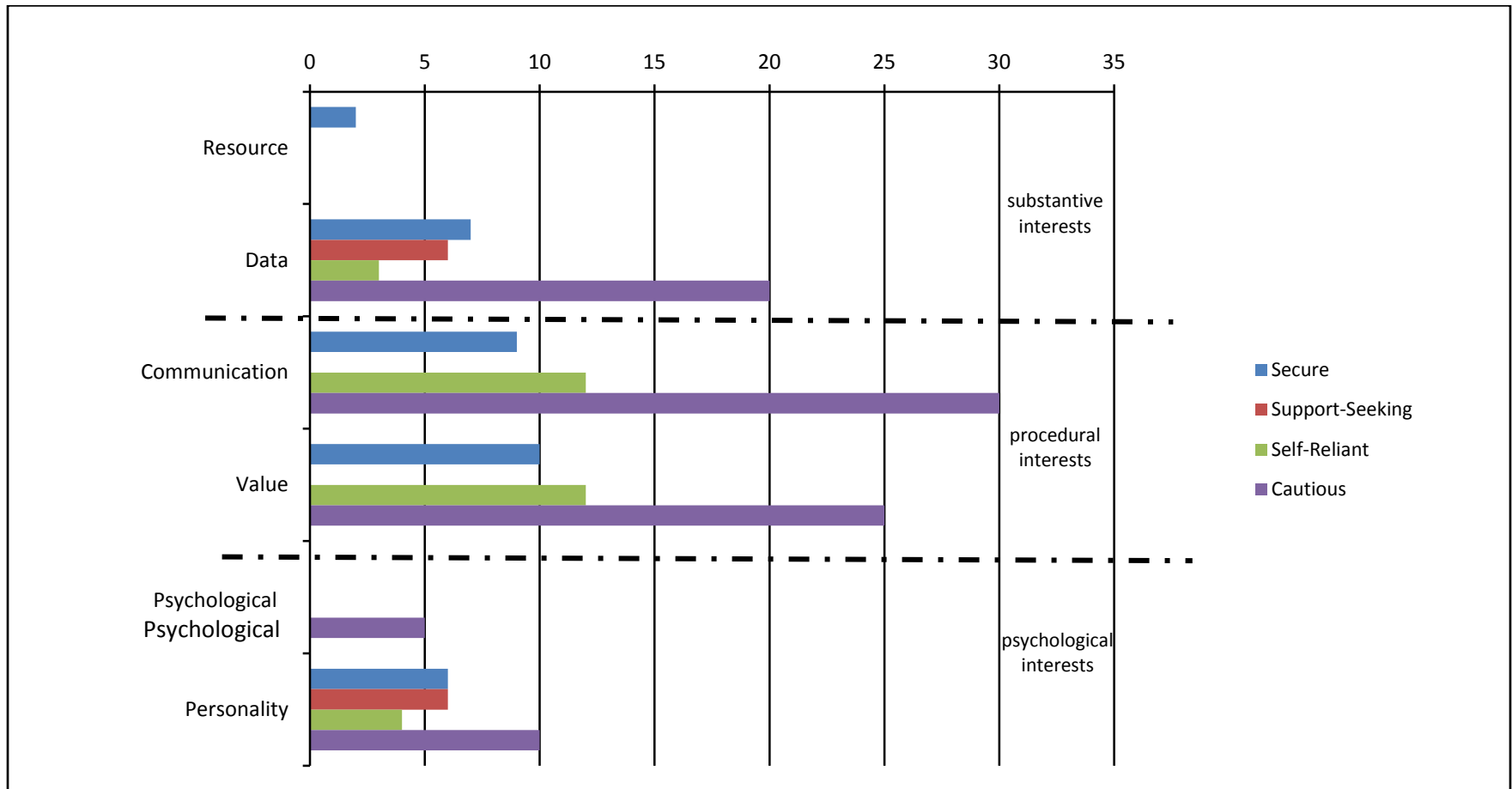
In this particular field note, it appeared that communication style was the source of the personality conflict between the family member and the physician. Both the verbal and non-verbal communication style contributed to the conflict for this family member.

Attachment Style and Conflict Type Results

Results were examined separately for the 62 field notes where the primary family member's attachment style was known (see Figure 3.5). Evidence for a total of 167 separate conflicts was identified in these field notes. Of note, family members with cautious attachment experienced conflict in all three areas (substantive, procedural, and psychological interests) and more incidences of conflict were recorded for these families in each of these areas. All other attachment styles were relatively similar for the type and causes of conflict.

Figure 3.5

Comparison of Main Family Member Attachment Style and Types of Conflict Recorded in Facilitator Field Note



Note. Attachment style clusters are normalized to account for unequal group size.

Discussion

Collaborative communication that includes optimal exchange of information, values, and psychological needs between clinicians, patients, and family members is associated with improved outcomes in critically ill patients (Lautrette et al., 2007; Stapleton, Engleberg, Wenrich, Gross, & Curtis, 2006). However, even with the best efforts and intentions of clinicians, communication may be less than optimal when interpersonal styles of patients and family members are not considered. Attachment theory provides a means of understanding and working with an individual's capacity or preference for communicating with or relying upon others. Communication is also often fraught with conflict, including incompatible or opposing interests or demands. Incorporation of knowledge and principles of mediation into the critical care setting is a useful way to systematically address and resolve conflict, thereby improving communication as well as patient and family outcomes (Goold, Williams, & Arnold, 2000). This analysis offers an opportunity to explore the use of individualized, targeted strategies for addressing communication needs of families of seriously ill patients and their HCTs using adult attachment theory and conflict theory.

Research has identified four distinct attachment styles. Three styles collectively represent insecure attachment and may present special challenges in the context of difficult healthcare decision-making, benefiting from greater attention and special communication skills. These three relationship styles represent approximately 42% of the general population (self-reliant 23%, support-seeking 19%, and cautious 10%) (Backermans-Kranenburg & VanIjzendoorn, 2009). Results from this analysis found a similar distribution, with insecure relationship styles in 52% of the primary family members of seriously ill ICU patients (self-reliant 34%, support-seeking, 8%, and cautious 18%).

These findings suggest that trained facilitators can use strategies to improve communication based on the attachment style of the family member. While the two facilitators here used all strategies with family members with all attachment styles, these results suggest that they tailored interventions based on attachment style. For example, previous research has shown that support-seeking individuals typically have high emotional needs that are often inadequately addressed in the complex and rushed hospital environment. They may benefit from regularly scheduled and consistent communication (Hunter & Maunder, 2001). This analysis found that the facilitators tailored interventions specific to the support-seeking attachment style in particular by frequently using *allow for expression*, *acknowledge concerns*, *encourage self-care*, and consistent *follow-through* strategies. These strategies follow closely with the understanding that support-seeking individuals need strong, empathetic attention. Support-seeking family members had a need to tell their stories and share their feelings to an external regulator (Bowlby, 1965) who was genuinely concerned. The facilitators may have fulfilled the role of external regulators in that they provided reliable, consistent information while skillfully communicating boundaries, such as communicating when the next check-in would be and which facilitator to expect for that next interaction. Similarly, promoting *self-care* and *consistent follow-through* with support-seeking attachment may create an external regulator to decrease distress and provide consistent reassurance and help with problem-solving.

These facilitators tailored their interactions with self-reliant family members in an effort to encourage a typically reluctant population to ask questions and participate collaboratively in decision-making. These individuals may benefit from being given options and from feeling in charge of a situation (Hunter & Maunder, 2001). This analysis found that the strategy most frequently used with self-reliant family members was *allow for expression*. However, the most

strongly associated with this attachment style was *encourage participation*. These findings are congruent with the attachment literature, which reports that these individuals need autonomy and control. The natural tendency of self-reliant family members is to avoid the HCT. They are in an uncomfortable position of being out of control and tend to be rather stoic in presentation. By allowing for expression, facilitators may attempt to gain trust so that these family members can develop a greater sense of control and ultimately participate in decision-making. Facilitators noted that these avoidant tendencies often made it challenging to offer support.

Previous research has shown that cautious individuals may exhibit approach-avoidance behavior under stressful circumstances. When initial attempts at collaborating or asking questions are perceived as falling short, they may then abandon further attempts out of fear of relying on others for support (Hunter & Maunder, 2001). The strategies most strongly associated with cautious family members were *allow for expression, acknowledge concerns, self-care enhancement, follow through, encourage participation, and reassure patient comfort*. Given the complex nature of this attachment style, these strategies may have all been used to build trust and encourage more collaborative communication. Interestingly, *reassure patient comfort* was unique to the cautious attachment style. This analysis showed that *reassure patient comfort* was used by facilitators usually when a conflict was experienced by cautious family members.

Data from this analysis suggest that family members with cautious attachment may be at risk for conflict with members of the HCT. In this analysis, family members with cautious attachment experienced conflict in all three areas of interest (substantive, procedural, and psychological) and had more incidences of conflict in each of these areas. This suggests that attachment-theory strategies may play a role in conflict resolution for some family members. Family members with a cautious attachment may experience inherent distrust for others that is

heightened in the stressful context of critical illness. Incidences of conflict with the HCT may serve to increase this distrust, creating a cycle of conflict that becomes difficult to interrupt. A trained facilitator may represent a neutral person with whom trust can be re-established. While family members with a cautious style represent a minority (10% in this analysis; 18% in the general population) (Backermans-Kranenburg & VanIjzendoorn, 2009), the experience of problematic interactions with 1 in 10 families is likely to be perceived as significant for the HCT.

Finally, there was evidence from this analysis that HCT members were more inclined to collaborate with facilitators when family members had a secure attachment style. This finding may be explained by the notion that members of the HCT “like” families with secure attachment because they are characteristically more collaborative, agreeable, and interactive than those families with insecure attachment.

Limitations

These findings have several important limitations. First, this analysis was done from field notes that were recorded for the purpose of communication and tracking between two facilitators. Field notes differed in length and quality. It is likely that facilitators did not record all strategies used with the family members in the intervention study or all conflicts encountered in these situations. Hence, underreporting is likely to have occurred and may have biased the data in unknown ways. Second, while this analysis included field notes for 79 separate families, representing a robust sample for a qualitative analysis, it is too small to allow meaningful statistical comparisons. Third, the facilitators were trained to deliver an intervention based on attachment theory. Hence, their field notes may reflect the language of this training rather than significant differences in their actions. This possibility was explored by examining field notes at different time points in the study to look for changes in the description of facilitator activities.

Over time, facilitators became more sophisticated in their descriptions of family behavior and strategies suggesting that field notes were capturing differences in facilitator behavior.

These findings suggest that critical care clinicians may benefit from an understanding of attachment styles in an effort to tailor their support of families, and to address and reduce conflicts with families of critically ill patients. As previously discussed, attachment styles have been used to influence perception and quality of communication in healthcare settings (Curtis et al., 2012). In addition, attachment style is also an important predictor of the quality of patient-clinician communication and a predictor of the influence of this communication on health outcomes (Curtis et al., 2012). Using attachment theory to understand family members' individual needs may help critical care clinicians alter their attitudes, and ultimately their communication, in ways that may improve clinician-family communication.

CHAPTER 4

CONCLUSION

I graduated with my baccalaureate in nursing in the spring of 2002 and spent the next five years working at the bedside on a busy cardiac step-down unit while somehow finding time to complete a Master's in nursing and begin doctoral studies in nursing science. As I reminisce about my career, I am struck by how little time in my education was directed towards effective communication. I took a Nursing Communication course as an undergraduate, but it provided little more than a small set of generalized, impersonal phrases that seemed very awkward. Our multiple choice exams were intended to test my communication skills: "The wife of an unconscious, end-stage cancer patient states that she wants the nurses to address her husband by name when they enter the room. Which statement by the nurse would be the most appropriate response?" I never liked any of the answers. How could I give an appropriate answer when I knew so little about the context of the situation? Was the wife in denial? Maybe her request was perfectly reasonable. Despite my attempts to reason through various scenarios, there was never a "right" answer and that did not sit well with me.

After a few years of clinical experience, I became an assistant nurse manager and I quickly learned the meaning of service recovery. My years of watching and learning from skilled (and not-so skilled) clinicians were deeply beneficial. I came in contact with angry, frustrated, and scared families in their varying clinical and social complexities. I drew upon my clinical experience as a direct care nurse as well as my personal experiences with my dying mother to see healthcare through their eyes. The feedback from the families I worked with was overwhelmingly positive, not so much because I "fixed" the problem but because I took the time

to listen and follow through with their concerns. I gained or, in some instances, helped them regain their trust in the healthcare system.

Reflections on Methodological Approach

Reading through the 79 field notes in this analysis brought back very powerful memories and strong emotions. I have cared for patients and their family members just like those described in the field notes. They were very familiar to me, yet now I was looking at them through the lens of a scientist—breaking down phrases, interpreting words, looking for patterns, and trying to learn something from what I was reading. Using directed content analysis as a qualitative method was useful in that it provided a consistent structure for a data set that was highly variable and complex (Hsieh & Shannon, 2005). An alternative approach would have been *free coding*, or inductive qualitative analysis of the field notes. This approach would have likely produced similar findings relative to the facilitators' strategies that were based on attachment theory. However, the field notes described added layers of conflict and additional collaborative strategies. Directed-content analysis helped to uncover new attachment theory-based strategies that emerged in the data that were not included in the initial coding scheme (i.e., *admit uncertainty* and *reassure patient comfort*). Hence, this analysis refined how the facilitators' strategies were based on attachment style, and it confirmed that attachment theory was being used by the facilitators in the intervention arm of the parent study.

Similarly, conflict theory was used to develop initial codes for this directed content analytic approach. This analysis confirmed that Moore's conflict model (2003), the triangle of satisfaction, could be applied to the conflicts encountered by the families in this study. All three interdependent interests posited by the theory (i.e., substantive, procedural, and psychological) and their corresponding conflicts (i.e., resource, data, communication, value, psychological, and

personality) were found in the field notes. More interestingly, the analysis helped to identify how conflict interacted with family members' attachment styles and the facilitator's chosen helping strategies. This study adds to the existing science preliminary evidence of a relationship between attachment theory and conflict theory in the setting of caring for families with a family member in an acute care setting.

Reflections on Adult Attachment Theory and Implications for Education

This data set brought all four attachment styles to life as posited by adult attachment theory. Attachment styles transcended family structures, patient illness situations, and provider types. There were no distinguishable patterns that correlated with family role, patient clinical story, or provider type. Adult attachment theory appears to be a powerful tool for all clinicians, including nurses who interface with patients and their families as much or more than any other clinical group in the acute care setting. The stories encapsulated in these 79 field notes offer a window into how nursing actions based on adult attachment theory might improve delivery of care for both patients/families and providers. Implications for education are numerous. Currently, communication strategies may be taught with limited theory or as a generalized skill set with little direction as to how to individualize their use based on patient or family member characteristics and needs. Integrating attachment theory into nursing and medical school curricula could provide a foundation for beginning clinicians to develop skilled use of communication strategies.

Providers also have attachment styles. While this analysis did not specifically address or measure clinicians' or facilitators' attachment styles, prior research suggests that this may be an area for exploration (Ciechanowski, 2007). As a career development tool, attachment theory also

could be used with clinicians to help guide them into specialties where their natural tendencies could be best utilized.

Reflections on Conflict Theory and Implications for Practice

These field notes also provided further evidence that conflict is everywhere in the clinical arena—unavoidable, constant, and between all parties. Embracing the fact that conflict is unavoidable is the first step towards mitigating its negative consequences. Conflict can be productive or destructive, and clinicians need strategies to ensure that they handle conflict well. Implications for practice include the need to address conflict in the healthcare setting to improve patient safety, increase positive patient outcomes, increase patient and family satisfaction, improve provider efficiency and morale, and effectively use resources.

Implications for Future Research

This analysis suggests possible areas for future research, in particular, how attachment theory could be used more effectively by nurses. For example, a clinical education study might explore whether training nurses in attachment styles and strategies related to adult attachment theory would improve specific patient outcomes and nurse satisfaction with care delivery. Second, an exploratory study might pilot an intervention using an on-call or just-in-time facilitator or other resource person who offered assistance based on adult attachment theory in situations where patients or family members are labeled as “difficult.” A third possible research pursuit would be an educational intervention with nurses to better address the conflicts between healthcare teams and patients or their families that occur in the clinical care setting by using adult attachment theory. Nurses would be trained to identify attachment styles and approach conflict differentially based on the patient’s or family member’s attachment. The impact of this educational intervention could be measured looking at patient/family satisfaction, nurse

satisfaction, and clinical outcomes. Finally, providers' attachment styles could be explored. Research on nurses' attachment styles has not been done to explore how these styles are related to practice areas, nurse job satisfaction, and perceived self-efficacy in communication with patients/family members.

In closing, this academic journey has been an amalgamation of my personal and professional experiences as a bedside clinician, nursing leader, nursing educator, and daughter of a recently deceased mother. My goal in completing this dissertation was to have a quality product that could be used by all nurses to improve practice and clinical outcomes. Similar to a parent wanting to give a child every opportunity to have a better life, I wish to help the nursing profession continue to advance and to improve professional nursing practice as it moves forward.

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Appendix

Summary of Studies Using Adult Attachment Theory to Guide Therapeutic Approaches in Illness Risk for Specific Diseases and Compromised Health in Adult Populations

Study Reference	Population and Setting	Design and Purpose	Attachment Measures	Pertinent Findings	Strength of Evidence	Specific Therapeutic Interventions
Agostini, A., Rizzello, F., Ravegnani, G., Gionchetti, P., Tambasco, R., Straforini, G., . . . Campieri, M. (2010). Adult attachment and early parental experiences in patients with crohn's disease. <i>Psychosomatics</i> , 51(3), 208-215.	102 patients with CD from the IBD unit and 306 convenience sample of healthy subjects	Case-control study investigating the bidirectional relationship between attachment style and a chronic relapsing disease	Attachment Style Questionnaire (2-dimensional, but refer to 4-category model as well)	Suggests that preoccupied subgroup has highest risk for CD	+	No
Ciechanowski, P., & Katon, W. (2006). The interpersonal expereince of health care through the eyes of the patient with diabetes. <i>Social Science & Medicine</i> , 63, 3067-3079.	27 patients with type 2 diabetes attending the University of Washington Diabetes Care Center	Qualitative study using a constant comparative approach exploring issues of trust and collaboration in the healthcare setting with patients who have dismissive and fearful attachments (negative model of others)	Relationship Questionnaire (4 categories)	Patients with a negative model of other perceive a distinct division of power between providers and patients that threatens their ability to engage in the health care system. Fearful: highly attuned to indications of rejection. Dismissive: highly sensitive to being controlled.	++	Yes
Ciechanowski, P., Katon, W., Russo, J., & Walker, E. (2001). The patient-provider relationship; Attachment theory and adherence to treatment in diabetes. <i>American Journal of Psychiatry</i> , 158, 29-35.	367 patients with type 1 and 2 DM in HMO setting	Correlation study to see association between patient-provider relationship and treatment adherence	Relationship Scales Questionnaire and Relationship Questionnaire (4 categories)	Dismissive patients with poor MD relationship had higher HbA1c (1.01%) compared to all groups despite relationship, potentially leading to 60% increase in retinopathy	+	Yes

Ciechanowski, P., Katon, W., Russon, J., & Dwright-Johnson, M. (2002). Association of attachment stlye of lifetime medically unexplained symptoms in patients with hepatitis C. <i>Psychosomatics</i> , 43(3), 206-212.	32 patients with Hepatitis C from the Division of Hepatology at UW in Seattle	Secondary analysis exploring the association of attachment style to unexplained symptoms	Relationship Scale Questionnaire and Relationship Questionnaire (4-categories)	In a Hepatitis C population, fearful and preoccupied attachment styles were associated with a greater number of medically unexplained symptoms	+	No
Ciechanowski, P., Katon, W., & Russo, J. (2005). The association of depression and perceptions of interpersonal relationships in patients with diabetes. <i>Journal of Psychosomatic Research</i> , 58, 139-144.	367 patients with DM in an HMO primary care setting	A longitudinal cross-section study of diabetic patients exploring the association of depression and perceptions of interpersonal relationships	The Relationship Questionnaire (4 categories +/- model of self and +/-model of other)	In patients who had improvement of depressive symptoms over time, their model of others improved (less avoidant, self-sufficient and cautious). In patients who had worsening of depressive symptoms over time, their model of self also worsened. Depression was more inversely correlated with model of self than with model of other.	+	No
Ciechanowski, P., Russo, J., Katon, W., VonKorff, M., Simon, G., Lin, E., . . . Young, B. (2006). The association of patient relationship style and outcomes in collaborative care treatment for depression in patients with diabetes. <i>Medical Care</i> , 44(3), 283-291.	324 patients with DM and major depression from 9 HMO clinics	Randomized clinical trial assessing the differences in relationship style among patients with co-morbid depression and DM receiving usual or collaborative care.	Relationship Questionnaire (4 categories)	Patients with diabetes and depression who have independent style of attachment show more clinical benefits from collaborative care intervention.	+	No
Ciechanowski, P., Russo, J., Katon, W., VonKorff, M., Ludman, E., Lin, E., . . . & Bush, T. (2004). Influence of patient attachment style on self-care and outcomes in diabetes. <i>Psychosomatic Medicine</i> , 66, 720-728.	4095 primary care patients with diabetes from 9 GHC clinics near the Seattle area	Cross-sectional study exploring the impact of patient attachment style on self-care and health outcomes	The Relationship Questionnaire (4 categories)	For those patients with dismissive attachment style, poor patient-provider relationships resulted in poor self-care. For those with preoccupied style, there was a lower risk of HbA1c >8%.	++	Yes

Ciechanowski, P., Russo, J., Katon, W., Lin, E., Ludman, E., Heckbert, S., . . . Young, B. (2010). Relationships styles and mortality in patients with diabetes. <i>Diabetes Care</i> , 33(3), 539-544.	3,535 non-depressed adult patients with type 1 and type 2 diabetes enrolled in a health maintenance organization in Washington and followed for 5 years	Longitudinal cohort study to determine if a lower propensity to seek support is associated with mortality in the diabetic population	Relationship Questionnaire (4 categories combined into 2 categories: interactive and independent)	Independent relationship style increases risk for death	++	Yes
Ciechanowski, P., Russo, J., Katon, W., Simon, G., Ludman, E., VonKorff, M., . . . Lin, E. (2006). Where is the patient? The association of psychosocial factors and missed primary care appointments in patients with diabetes. <i>General Hospital Psychiatry</i> , 28, 9-17.	3923 patients with diabetes from 9 health maintenance organization primary care clinics in Western Washington State	Correlation study hypothesizing that when compared to secure attachment style, fearful and dismissing attachment styles will probably be associated with greater number of missed primary care visits in patients with diabetes	Relationship Questionnaire (4-category)	Dismissive patients missed more scheduled office visits	++	Yes
Ciechanowski, P., Sullivan, M., Jensen, M., Romano, J., & Summers, H. (2003). The relationship of attachment style to depression, catastrophizing and health care utilization in patients with chronic pain. <i>Pain</i> , 104, 627-637.	111 patients with chronic pain in a multidisciplinary pain treatment program at UW	Secondary analysis to determine if attachment style is associated with pain, depression, catastrophizing, and physical disability at pre-treatment and 12-month follow up	Relationship Scale Questionnaire (4 categories)	Those with fearful attachment have greater depression and catastrophizing; secure attachment have lower levels of depression; preoccupied had more frequent visits.	++	Yes
Ciechanowski, P., Walker, E., Katon, W., & Russo, J. (2002). Attachment theory: A model for health care utilization and somatization. <i>Psychosomatic Medicine</i> , 64, 660-667.	701 adult female primary care health maintenance organization patients	Correlation study to see if attachment style was significantly associated with symptom reporting and utilization/cost data.	Relationship Questionnaire (4 categories) but discussion around "other" and "self"	Preoccupied had highest care utilization/cost and Fearful had lowest care utilization/cost. Both preoccupied and fearful had highest physical symptom reporting of all styles.	++	Yes

Cozzarelli, C., Sumer, N., & Major, B. (1998). Mental models of attachment and coping with abortion. <i>Journal of Personality and Social Psychology</i> , 74(2), 453-467.	408 women undergoing a 1 st trimester abortion at a large free-standing abortion clinic in NY between February 1993-September 1993	Cohort study to examine the impact of attachment style on the process of adjustment to a real-life stressful event (abortion)	Relationship Questionnaire (4 categories but operationalized attachment patterns as mental models: positive /negative, self/others)	Preoccupied women are more likely to respond to stress or potential conflict in ways that elicit confrontational behavior from others compared to secure	+	No
Davies, K., Macfarlane, G., McBeth, J., Morriss, R., & Dickens, C. (2009). Insecure attachment style is associated with chronic widespread pain. <i>Pain</i> , 143, 3-24.	2509 participants registered at one of three general practices in England	Population-based cross sectional study investigating the associations between attachment style and the experience of pain	Relationship Questionnaire (4-categories)	Those with preoccupied attachment style are most strongly associated with the experience of CWP, pain-related disability and number of pain sites.	+	No
Ercolani, M., Farinelli, M., Agostini, A., Baldoni, F., Baracchini, F., Ravegnani, G., & Bortolotti, M. (2010). Gastroesophageal reflux disease (GERD) and inflammatory bowel disease (IBD): Attachment styles and parental bonding. <i>Perceptual and Motor Skills</i> , 111(2), 625-630.	64 patients with GERD from the Digestive Motility Laboratory in Bologna Italy, 64 patients with IBD from the Italian Association of Patients and 126 healthy participants casually selected from the general population.	Comparative exploratory, cross-sectional study replicating previous work with the addition of a healthy group of patients to compare similarities and differences of attachment style with GERD and IBD	Attachment Style Questionnaire (Italian) 2-dimensional	Insecure attachment increases risk for GERD and IBD. The anxious subtype specifically increasing risk for GERD.	-	No
Gallo, L., & Matthews, K. (2006). Adolescents' attachment orientation influences ambulatory blood pressure responses to everyday social interactions. <i>Psychosomatic Medicine</i> , 68, 253-261.	217 adolescents (14-16 years old) recruited from 2 area high schools in Pittsburgh, Pennsylvania	Cross-sectional study investigating the role of attachment style on social processes and physiological stress responses	Measurement of Attachment Quality (2 dimensional)	High anxious attachment was associated with increased SBP, DBP and HR during times of increased social stress. High avoidant attachment was associated with increased DBP in response to social conflict.	+	No

Gick, M., & Sirois, F. (2010). Insecure attachment moderates women's adjustment to inflammatory bowel disease severity. <i>Rehabilitation Psychology, 55</i> (2), 170-179.	291 women with IBD (ulcerative colitis, Crohn's, microscopic colitis)	Exploratory study on how insecure attachment moderates adjustment to chronic illness	Instrument not identified, but discuss insecure attachment as 2-dimensional framework of anxiety and avoidance	Patients with high anxiety have disease activity that is inversely r/t perceived social support and coping efficacy. Patients with high avoidance have disease activity that is strongly associated with negative affect.	-	No
Granot, M., Zisman-Ilani, Y., Ram, E., Goldstick, O., & Yovell, Y. (2011). Characteristics of attachment style in women with dyspareunia. <i>Journal of Sex & Marital Therapy, 37</i> , 1-16.	110 Israeli-Jewish women, 45 reporting painful vaginal intercourse (dyspareunia) and 65 control	Comparative exploratory study 1) investigating the association between somatization and attachment style in women with dyspareunia and 2) hypothesizing that insecure attachment and high levels of somatization will be associated with dyspareunia	Experience in Close Relationships Scale (both 2-dimensional and 4-categorical)	High levels of somatization and avoidance are more susceptible to dyspareunia, somatization and insecure (particularly avoidant) attachment are more likely to report pain	-	No
Hunter, M., Davis, P., & Tunstall, J. (2006). The influence of attachments and emotional support in end-stage cancer. <i>Psycho-Oncology, 15</i> , 431-444.	67 end-stage cancer patients recruited from a hospice homecare service in Brisbane, Australia	Cross-sectional, correlational study exploring the impact of attachment style and emotional support on negative affect in end-stage cancer patients using path analysis	The Relationship Questionnaire (2-dimensional derived from 4 category)	High anxiety and avoidance resulted in lower perceived levels of support. High anxiety was also predicted distress.	-	No
Maunder, R., Lancee, W., Nolan, R., Hunter, J., & Tannenbaum, D. (2006). The relationship of attachment insecurity to subjective stress and autonomic function during standardized acute stress in health adults. <i>Journal of Psychosomatic Research, 60</i> , 283-290.	67 healthy adults in a primary care population in Toronto, Canada	To test predictive relationship between adult attachment and stress using subjective and physiological measures	Experience of Close Relationships (2-dimensional)	Avoidant attachment is associated with a lower level of vagal tone (as determined by high-frequency heart rate variability) and anxious attachment is associated with self-reported distress.	+	No

Maunder, R., Lancee, W., Hunter, J., Greenberg, G., & Steinhart, A. (2005). Attachment insecurity moderates the relationship between disease activity and depressive symptoms in ulcerative colitis. <i>Inflammatory Bowel Disease, 11</i> (10), 919-926.	146 patients with ulcerative colitis in outpatient setting	Longitudinal correlation study to determine if insecure attachment style moderates the risk that active inflammation in ulcerative colitis will be associated with depression.	The Experience in Close Relationships-Revised questionnaire (2-dimensional)	For UC patients with high anxiety, more severe disease is associated with more severe depressive symptoms	+	No
Maunder, R., Panzer, A., Viljoen, M., Owen, J., Human, S., & Hunter, J. (2006). Physicians' difficulty with emergency department patients is related to patients' attachment style. <i>Social Science & Medicine, 63</i> , 552-562.	165 patients in an ED in Pretoria, South Africa seeking care for various complaints	Correlation study investigating if attachment style is associated with physicians' perception of difficulty in a stressful real-world medical setting, the ED.	Experiences in Close Relationships-Revised questionnaire (2-dimensional, 4 categories)	Patient difficulty as perceived by the MD was as follows fearful>dismissing>preoccupied>secure	++	No
Meredith, P., Ownsworth, T., & Strong, J. (2008). A review of the evidence linking adult attachment theory and chronic pain: Presenting a conceptual model. <i>Clinical Psychology Review, 28</i> , 407-429.	12 studies linking adult attachment theory with chronic pain	Review of literature and presentation of conceptual model Attachment-Diathesis Model of Chronic Pain	Attachment Self-Report, Revised Adult Attachment Scale, Relationship Questionnaire, Attachment Style Questionnaire, Relationship Questionnaire, Experience in Close Relationships Questionnaire (2-dimensional, 3-5 categories)	Attachment-based theoretical perspectives of pain have portrayed insecurely attached individuals as: (1) at greater risk for developing chronic pain; (2) less able to internally manage the distress associated with pain; (3) less able to procure and maintain external supports; (4) less able to form secure therapeutic alliances; (5) perceiving more negative intent in health professionals; (6) evoking more negative responses from health professionals; and (7) possible sabotaging therapeutic efforts.	++	Yes

Meredith, P., Strong, J., & Feeney, J. (2007). Adult attachment variables predict depression before and after treatment for chronic pain. <i>European Journal of Pain, 11</i> , 164-170.	99 participants from two multidisciplinary pain clinics in Australia	A correlation study exploring the link between depression and attachment in the context of chronic pain before and after pain rehabilitation	Attachment Style Questionnaire (2 dimensional)	Those with secure attachment have a lower risk for depression in the context of chronic pain.	+	Yes
Mikuliner, M., Horesh, N., Levy-Shiff, R., & Manovich, R. (1998). The contribution of adult attachment style to the adjustment of infertility. <i>British Journal of Medical Psychology, 71</i> , 265-280.	80 infertile couples (husband and wife) undergoing medical treatment for infertility in public gynecology clinics in Israel	Longitudinal study on influence of attachment style on the adjustment to infertility and the likelihood of becoming pregnant	Attachment Style Scale (3 categories-secure, avoidant or ambivalent)	Those with secure attachment are less distressed and have better ability to cope with infertility which may result in an increased likelihood of becoming pregnant.	-	No
Morris, L., Berry, K., Wearden, A., Jackson, N., Dornan, T., & Davies, R. (2009). Attachment style and alliance in patients with diabetes and healthcare professionals. <i>Psychology, Health & Medicine, 14</i> (5), 585-590.	48 outpatients from 2 diabetes clinics in England and 8 HCP (RN, RD, Pod)	Correlation study to see if avoidant attachment style is related to quality of the therapeutic alliance between professionals and patients	The Attachment Measure- 2 categories-avoidance and anxiety	Patients with avoidant tendencies have poor relationships with healthcare providers.	+	No
Pegman, S., Beesley, H., Holcombe, C., Mendick, N., & Salmon, P. (2011). Patients' sense of relationship with breast cancer surgeons: The relative importance of surgeon and patient variability and the influence of patients' attachment style. <i>Patient Education and Counseling, 83</i> , 125-128.	133 women due to undergo surgery for breast cancer	Cross sectional study examining the influence of attachment style on patient relationship with surgeon	The Relationship Questionnaire and the Relationship Scales Questionnaire (secure or insecure)	Attachment process may have less impact on cancer patients' relationships with clinicians as compared to emergency care, and chronic conditions.	-	No
Rossi, P., Lorenzo, G., Malpezzi, M., Lorenzo, C., Cesarino, F. F., Siracusano, A., & Troisi, L. (2004). Depressive symptoms and insecure attachment as predictors in a clinical population of patients with episodic and chronic migraine. <i>Headache, 45</i> , 561-570.	200 patients with episodic migraines and chronic migraines referred to a specialty migraine clinic in Italy	A comparative-correlational study to define predictors of migraine-related disability	Attachment style Questionnaire (2-dimensional)	Insecure attachment was associated with more severe depression, higher disability, chronic migraines, and more severe pain intensity.	+	No

Sambo, C., Howard, M., Kopelman, M., Williams, S., & Fotopoulou. (2010). Knowing you care: Effects of perceived empathy and attachment style on pain perception. <i>Pain, 151</i> , 687-693.	30 healthy participants exposed to experimentally induced pain using thermal noxious stimuli	Correlation study exploring the effects of social presence and perceived empathy on the perception of experimentally induced acute pain and it's relation to attachment style	The Relationship Scale Questionnaire (2-dimensions of anxiety and avoidance)	Anxious participants report lower pain when there is a perceived empathetic observer. Avoidant participants report lower pain in the absence of an observer.	+	No
Saragusty, C., Berant, E., & Yaniv, E. (2010). Association of attachment anxiety and satisfaction with nasal surgery. <i>Rhinology, 49</i> , 117-120.	63 randomly selected patients with chronic sinusitis who were scheduled for (functional endoscopic sinus surgery) FESS with septoplasty at the Nose and Sinus Institute between Oct 2005 and March 2006.	Pre/post-test, correlational study to investigate the possible contribution of attachment anxiety to satisfaction with the outcome of surgery	Experiences in Close Relationships Scale (2-dimensional)	High anxiety corresponded to increased mental distress, poor quality of life, and poor postoperative pain control	+	No
Savi, L., Buccheri, R., Tamborini, A., DeMartino, P., Albasi, C., & Pinessi, L. (2005). Attachment styles and headaches. <i>Journal of Headache Pain, 6</i> , 254-257.	114 subjects suffering from primary headaches (migraine, tension-type, chronic daily headache) referred to the Health Centre of the University of Turin, Italy and 57 controls	Control study evaluating the attachment styles in headache patients	Adult Attachment Questionnaire (3 category); Attachment Style Questionnaire (2-dimensional)	Insecure attachment may increase the risk for chronic headaches	-	No
Schmidt, S. (2003). Female alopecia: The mediating effect of attachment patterns. <i>British Journal of Dermatology, 148</i> , 1205-1211.	74 women, 19-68 years old, from a university outpatient clinic with androgenic or diffuse alopecia	Prospective cohort study investigating whether attachment styles have an effect on the impact of hair loss on patients' lives and whether attachment security moderates the adaptation process in the course of dermatological treatment	German version of Adult Attachment Prototype Rating (2-dimensional, 4 category)	Those pts.' with ambivalent attachment style had increased separation anxiety r/t hair loss	-	No

Taylor, R., Mann, A., White, N., & Goldberg, D. (2000). Attachment style in patients with unexplained physical complaints. <i>Psychological Medicine</i> , 30, 931-941.	2042 primary care patients presenting with physical complaints in 10 different general practices in London from July 1997-March 1998	Cohort study investigating the role of attachment style in determining the utilization of general practitioner. Patients were rated by practitioners into 3 categories of presentation: explained physical, unexplained physical, and psychological (somatizers)	Attachment Style Questionnaire (2-dimensional)	Patients with abnormal attachment are more likely to ask a GP for psychological help, most likely because their attachment problems lead them to have fewer supportive relationships and/or to be unable to make use of their intimate relationships for support.	-	No
Turner-Cobb, J., Gore-Felton, C., Marouf, F., Koopman, C., Kim, P., Israelski, D., & Spiegel, D. (2002). Coping, social support, and attachment style as psychosocial correlates of adjustment in men and women with HIV/AIDS. <i>Journal of Behavioral Medicine</i> , 25(4), 337-353.	137 HIV-positive men and women	Cross-sectional analysis to examine attachment as a component of adjustment to HIV/AIDS	Adult Romantic Attachment (2-dimensional, 3 category)	Patients with "positive other" (interactive) style may cope better with chronic illness	-	Yes
Zech, E., DeRee, F., Berenschot, F., & Stroebe, M. (2006). Depressive affect among health care seekers: How it is related to attachment style, emotional disclosure, and health complaints. <i>Psychology, Health & Medicine</i> , 11(1), 7-19.	198 patients and accompanying people visiting GP office in Sittard, Netherlands	Cross-sectional comparative questionnaire survey examining the relationship between attachment, disclosure, and well-being among healthcare seekers	Adult Attachment Scale (2-dimensional)	Avoidant: less depressed affect, less emotional disclosure, more severe physical problems. Anxious: more depressed affect, more psychological symptoms, more emotional disclosure although not effective in reducing stress	+	Yes

VITA

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