

ABSTRACT

Title of Document:

**THERAPIST REACTIONS TO A CLIENT
FACING TERMINAL ILLNESS: A TEST
OF EGO AND COUNTERTRANSFERENCE**

Ann M. Hummel, Doctor of Philosophy, 2013

Directed By:

**Professor C. J. Gelso, Department of
Psychology**

When a therapy client presents with thoughts, emotions, or behaviors that trigger a therapist's own unresolved conflicts, the therapist may experience countertransference. Client concerns that may trigger countertransference include sexuality, aggression, and death (Gelso, Fassinger, Gomez, & Latts, 1995; Latts & Gelso, 1995; Hayes & Gelso, 1993; Lacocoque & Loeb, 1988). Countertransference has been found to relate negatively with client outcome (Hayes, Gelso, & Hummel,

2011), but countertransference management can mitigate the negative effects of countertransference, and can even result in curative therapeutic responses (Gelso & Hayes, 2007). A phenomenon known as ego depletion may cause a therapist to be more vulnerable to countertransference. Ego depletion occurs when self-resources related to impulse control, decision-making, and willpower are low (Baumeister, Vohs, & Tice, 2007). Because of the relation between ego depletion and impulse control, the effect of ego depletion on countertransference was tested. Forty-five participants were randomly assigned to either a neutral or ego depletion condition, and were then presented with a scripted analogue client who discussed a potential terminal illness diagnosis. Participants responded verbally to the client, and their responses were transcribed and coded for behavioral indicators of countertransference. Participants also completed measures of affective and cognitive countertransference. Countertransference management and ego defense maturity were assessed as potential predictors of resilience to ego depletion. The participants in the ego depletion reported higher levels of content-specific affective countertransference (death anxiety), but general affective (state anxiety), behavioral, and cognitive countertransference did not differ between conditions. Countertransference management and ego defense maturity did not significantly account for variance in the relation between ego depletion and countertransference. However, the relation found between ego defense maturity and countertransference management suggests that ego defense maturity could be a precursor to countertransference management. Overall, ego depletion led to increased death

anxiety, but therapists were resilient to having this content-specific reaction generalize to other forms of countertransference.

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By

Ann M. Hummel

Dissertation submitted to the Faculty of the Graduate School of the
University of Maryland, College Park, in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy
2013

Advisory Committee:
Professor Charles J. Gelso, Chair
Professor Mary Ann Hoffman
Professor Emeritus Barry Smith
Associate Professor Margaretha Lucas
Associate Professor Jon Mohr

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Dedication

For my family, who have supported me always- my daughter Priya, my husband Sanjay Stone, my sister Catherine Hummel, my aunt Lauren Hummel, and my parents Janice and Bill Hummel.

Acknowledgements

I am first and foremost grateful to Charlie Gelso, my academic advisor, for his guidance and support throughout graduate school. Charlie showed me how enjoyable high-quality scholarly work- whether, research, writing, teaching, or practice- could be. I owe much of my development in those areas to Charlie, but one area that is harder to capture on paper but just as worthy of acknowledgement is Charlie's sense of humor. So many classes, meetings, and conversations with him were filled with laughter, it made already intellectually engaging conversations that much more fun and memorable. Thanks to Charlie and the rest of the University of Maryland Counseling Psychology faculty and students, graduate school was simultaneously challenging, stressful, and rewarding. I am also very appreciative of my dissertation committee- Jon Mohr, Barry Smith, Mary Ann Hoffman, and Margaretha Lucas- for their feedback and recommendations. Finally, I am grateful to Carol Gorham for her warmth, kindness, and help from my graduate school application all the way to graduation.

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Chapter 1: Introduction

In psychotherapy, a therapist's efficacy may be undermined by unconscious processes which cause the therapist's responses to a client to originate from the therapists' own unresolved conflicts rather than a client's presentation. This phenomenon in which a therapist's inner conflict becomes part of the therapeutic relationship is known as countertransference. While there are occasions in which countertransference might provide insight beneficial to the therapeutic process, it generally has been found to correlate negatively with client outcome (Hayes, Gelso, & Hummel, 2011). To gain further understanding of potential causes of countertransference, studying the part of the self that mediates internal conflict with the demands of the outside world- known as the ego- may prove useful. In the present study, the interrelations of ego defense maturity, ego depletion, countertransference, and countertransference management were tested. These concepts were operationalized by examining how ego depletion affects therapists' responses to an analogue therapy client facing a potential terminal illness, and how factors such as ego defense maturity and countertransference management might predict therapists' responses.

Although the concept of the ego was initially the purview of psychoanalysts, recent research in social psychology has found the concept of the ego a useful framework for understanding phenomena such as self-control, impulse override, and willpower (e.g., Baumeister, Bratslavsky, Muraven, & Tice, 1998; Baumeister, Vohs & Tice, 2007). However, more research is needed to link the ego research in social psychology to psychoanalytic concepts

such as ego defense maturity (e.g., Vaillant, 1992). Also, the psychoanalytic and social psychological theories of ego could both help clarify phenomena in psychotherapy, such as therapists' reactions to clients that are based on the therapists' own unresolved issues- referred to as countertransference. Thus, the purpose of the present study is to link these two areas of study concerning the ego (social psychology and psychoanalysis), and also to use them to better understand countertransference.

The idea of the ego can be traced to psychoanalytic theory about intrapsychic structure, namely that intrapsychic processes can be represented by the roles of the id, ego, and superego (Mishne, 1993, p. 171). The id represents instinctual impulses; the ego represents rational thought and perception of reality; and the superego represents morality and societal values (A. Freud, 1966; 1923, p. 25; Mishne, 1993, p. 13-15). The ego also plays a role in mediating conflict between instincts, reality, and morality (Mishne, 1993, p. 15).

Recent research on impulse override, self-control, and willpower has found that such processes commonly associated with the ego in psychoanalytic theory do seem to interrelate (e.g., Baumeister, Vohs, & Tice, 2007). Baumeister, Bratslavsky, Muraven, and Tice (1998) proposed a model of ego in which ego is considered a limited resource, similar to energy or strength. According to this model, an act of volition draws from a finite self-resource and causes depletion of the ego; subsequent acts of volition could be affected by depletion resulting from the initial act. This effect is known as ego depletion. Gailliot et al (2007) found physiological evidence to support the model of ego as a finite resource. Glucose levels in the bloodstream

have been found to correlate with ego functions such as willpower, self-control, and impulse override (Gailliot & Baumeister, 2007a)

Ego depletion has been found to be predictive of a number of behaviors, such as giving up on difficult tasks, acting impulsively, and declining to help others (e.g., Gailliot & Baumeister, 2007b; DeWall, Baumeister, Stillman, & Gailliot, 2007; Muraven, Pogarsky, & Shmueli, 2006). Ego depletion also varies predictably in response to situational variables such as temptation, tiresome tasks, or forced choice scenarios (see Baumeister, 2002; Vohs, Baumeister, Schmeichel, Twenge, Nelson, & Tice, 2008; Baumeister, Bratslavsky, Muraven, & Tice, 1998). Ego depletion can thus be affected by situational factors in everyday life and affect one's behavior in daily life.

The variables that affect ego, and related behaviors that occur as a result of ego state, might be a useful source of information about the behaviors of clients and therapists within the context of psychotherapy. Although client factors are important predictors of client outcome in psychotherapy (e.g., Lambert & Barley, 2001), therapists can only control their own contribution to therapy, and how they interact with clients. Thus, the focus of the present study is on therapists' behaviors in psychotherapy, more specifically, those behaviors that are likely to interfere with their clients' outcome. Countertransference has been found to relate negatively to client outcome (Hayes, Gelso, & Hummel, 2011). Countertransference occurs as a result of how client-therapist interaction provokes reactions on the part of the therapist from his or her unresolved conflicts (Gelso & Hayes, 2007). Several qualities in the therapist that may relate to the ego could be involved in countertransference. First, the management of any unresolved

conflicts themselves falls under the purview of the ego. Second, responses that indicate a successful acting out of instinctual impulses suggest a failure in the ego's management of the impulses that are theoretically connected to the construct often termed "id" within psychoanalytic theory.

Therapists' countertransference and their ability to deal effectively with their countertransference (often termed countertransference management) may depend on the maturity of their ego defenses and situational factors that can either strengthen or weaken the ego. Although a therapist would seem to lack control over a trait-like characteristic such as ego defense maturity, or over situational factors that deplete the ego, there are possible remedies should either of those factors result in problematic behavior on the part of a therapist. Psychotherapy has been found to improve one's ego defense maturity (Bond & Perry, 2004; Kramer, De Roten, Michel, & Despland, 2009). For situation-based ego depletion that could lead to acting out, one can practice over time to strengthen the ego to make it more resilient to depleting situations (Baumeister, Vohs, & Tice, 2007). Strategies such as avoiding tempting situations, and restoring the ego through inducing positive affect, could be used to help prevent acting out which results from ego depletion (Baumeister, Bratslavsky, Muraven, & Tice, 1998; Tice, Baumeister, Shmueli, & Muraven, 2007).

If therapists are more vulnerable to countertransference based on their own ego defense maturity, or ego depletion, it seems worthwhile to explore exactly how these variables relate. If such vulnerabilities exist, the role of countertransference management in preventing possible problems with countertransference should be taken into account. The theories and research

about the ego from psychoanalysis and social psychology seem to converge; purposefully combining these perspectives could provide new insight and understanding of how the ego functions, and its role in psychotherapy.

Chapter 2: Literature review

Ego

What is ego? Classical psychoanalytic theory conceptualizes three processes- the id, ego, and superego- that each represent distinct intrapsychic roles (Mishne, 1993, p. 171). In this theory, the id is a term used to refer to processes associated with impulse and instinct (A. Freud, 1966, p. 7). The id is thought of as a primary process: the id both develops first and is the origin of impulses that are in turn dealt with by the ego, a secondary process.

The term ego is used to refer to processes that represent the realistic and reasoning part of the self. According to Freud, the ego “seeks to bring the influence of the external world to bear upon the id...” (Freud, 1961, p. 25). Reality and reasoning are represented within the self by the ego (Mishne, 1993, p. 13-15). The intrapsychic representation of morals and familial and societal values is referred to as the superego.

In some situations, one’s impulses are not appropriate given the reality of one’s environment. In such cases when reality is not conducive to the desires of the id, then the ego, as the representative of reality, will be at odds with the id (A. Freud, 1966, p. 7; Fenichel, 1945, p. 132). Morals imposed by the superego can also be in conflict with either the id or ego. The ego is thought to handle these conflicts between instinct (id), reality (ego), and morality (superego); such conflicts are likely to produce tension and anxiety (Mishne, 1993, p. 15). The superego’s role in conflicts between impulsive urges and reality can help clarify the nature of such conflicts

(Fenichel, 1945, p. 132). The superego's role in internal conflicts will be explored further in the section on ego defense mechanisms.

Baumeister, Bratslavsky, Muraven, & Tice (1998) describe ego as the "self's capacity or willingness to engage in volitional action," which is similar to Freud's (1923, p. 17) description of the ego as responsible for motility in the external world. As noted in Baumeister et al (1998), both the psychoanalytic and social psychology conceptualizations of the ego involve an expectation that some of kind of energy is required for the ego's functions. This suggests that the ego may represent a psychophysiological process or set of processes.

Across theories, the present review of a range of psychoanalytic and social psychological theories suggests four common roles attributed to the ego seem to include: observer and representative of reality; a secondary process; a self-regulator; and a decision maker (Fenichel, 1945, p. 35; A. Freud, 1966, p. 7; Pine, 1990; p. 34; p. 203; Schmeichel, Vohs, & Baumeister, 2003; Gailliot & Baumeister, 2007; Baumeister, 2002). Each theoretician here cited suggests one or two of these four roles, but an integration of the literature has led to this investigator's proposal of the four roles. The theoretical and empirical basis for these roles will now be explored.

Ego as an observer of reality. "The ego represents what may be called reason and common sense, in contrast to the id, which contains the passions," (Freud, 1961, p. 25).

The development of the ego is linked with the development of recognition of the reality of one's external world (Fenichel, 1945, p. 35). In a classic psychoanalytic sense, the id represents the part of the self that is entirely pleasure-seeking. It is thought that in infancy,

pleasure is found through eating. However, without any reasoning capacity, an infant will put anything in his mouth, whether it is edible or not. This may be exemplified when one observes an infant putting a cell phone or car keys in her mouth. As an infant matures, her ego develops initially to determine that which is edible or not. It is the ego that helps us determine what can, in reality, be put into one's mouth and eaten: literally, but also figuratively, by determining which impulses or feelings should be accepted or rejected (Fenichel, 1945, p. 146). Decisions around what can be taken in, or eaten, and what should be rejected, or spit out, require an understanding of one's needs, and how suitable the offerings of the environment are to providing satisfaction to those needs. This understanding is a function of the ego.

In a broader conceptualization, the ego handles recognition of reality, and subsequent adaptation to one's environment (Pine, 1990, p. 34; p. 170). In this role, the ego does represent reality, but in a way that is suitable or bearable for the id (Mishne, 1993, p. 15). The role of adapting the self to reality was considered by Freud to be the most important function of the ego (Mishne, 1993, p. 13).

Ego as a secondary process. The ego has been described by Freud as a secondary process that occurs after or in response to the id, a primary process (1966, p. 7). In fact, ego seems to be secondary to the id in a number of ways. First, as a psychological process: the id and its drives are thought to create initial impulses, to which the ego reacts or responds; the physiology underlying impulse creation and override may support this conceptualization (e.g., Libet, 1999; Schmeichel, Vohs, & Baumeister, 2003). Second, in human development, the id is thought to exist in infants, while the ego and its associated roles grow and mature later in childhood.

Finally, in evolutionary psychology, the roles of the ego have been theorized to have evolved after instinct and impulse, the province of the id (Baumeister, 2008).

Secondary psychological process. As a secondary process, the ego integrates information about reality with efforts by the id to be gratified, as well as the ethics and rules imposed by the superego (A. Freud, 1966, p. 7). By responding to impulses from the id (Freud, p. 31), the ego acts as a defense against instinctual drives (Pine, 1990, p. 34; p. 213), which, if left to themselves, would bring an individual and society to grief. Empirical support for the ego as a secondary process can be found in some of the research on impulse control. For example, Libet (1999) presented the neurophysiological process of a volitional override of an unconsciously initiated act. It has been found that awareness of the intention to act occurs after the electrical charge specific to the act has started in the brain, but before the electrical charge for the actual motor process of the act. Thus there is a time delay between the initiation of an act and its being carried out, or the conscious veto of that act (Libet, 1999). The conscious veto of an impulse can be initiated unconsciously or consciously, which can be determined by monitoring the timing and speed of such overrides in relation to the original impulse (Libet, 1999). This may support Freud's theory of the ego as having both conscious and unconscious aspects (e.g., Freud, 1923, p. 24).

When the id and ego are in conflict, the tension between the two processes produces anxiety. This anxiety in turn serves as a signal to the ego that a defense is needed in order to handle the anxiety (Pine, 1990, p. 171; Fenichel, 1945, p. 134). An example of this phenomenon may be found in how death anxiety relates to ego and defense mechanisms. Ego seems to play a

role in people's experience and handling of death anxiety (Hui, Bond, & Ng, 2007; Gailliot, Schmeichel, & Baumeister, 2006). In a recent experimental study, death anxiety, and defenses that increased as a result of threatening thoughts of death, were found to deplete the ego (Gailliot, Schmeichel, & Baumeister, 2006). Trait and state levels of self-control (one role of the ego) were negatively related to thoughts of death and death anxiety in the presence of death-related verbal and visual cues, suggesting that ego may play a role in one's management of death anxiety. These findings suggest that the ego plays a role in managing anxiety that results from unacceptable thoughts, affect, or experiences.

Overall, impulses from the id seem to occur first, then conflict with the ego, including consideration of a possible impulse override. Anxiety that is produced as a result of conflict between the id and ego is managed by defense mechanisms within the ego (Fenichel, 1945, p. 134). (Ego defenses will be explored in a subsequent section.) This sequence illustrates how the ego might be a secondary process that occurs in response to the primary process, the id.

Secondary in development. According to A. Freud (1966), ego functioning develops over time in childhood; it is not fully formed in infancy (Fenichel, 1945, p. 146). Infants experience powerlessness in obtaining drive satisfaction, which leads to early formation of a method of somehow coping with reality when it does not match one's fantasy (A. Freud, 1966, p. 93-94). Infants begin to develop some ability to self-regulate if they learn that their needs are met by taking actions such as looking around, making noise, or moving. As children grow older and gain more physical capability, their abilities to get their needs met change, and their methods of

responding with reality change (A. Freud, p. 94). By adulthood, capacities for ego functions such as adaptation, reality testing, and defense have fully developed (Pine, 1990, p. 34).

Evidence for the secondary development of the ego and its various roles can be found in neuropsychology research. "As that part of the mind which handles reality," (Fenichel, 1945. p. 35) the functions of the ego such as impulse control, reasoning, and planning, are suggested to be handled in the prefrontal cortex of the brain (Welsh, Pennington & Groisser, 1991; Miller & Cohen, 2001; Moll, Zahn, & de Oliveira-Souza, 2005). For example, patients with lesions in the prefrontal cortex have been found to lack impulse control, and tend show disinhibition of instinctual behavior (Fuster, 2001). The prefrontal cortex has been found to be one of the last areas of the brain to finish development, finalizing in adolescence rather than in infancy or childhood (Pinel, 2009, p. 224). The neuropsychological underpinnings of the ego seem to develop at about the same time as the ego processes have been theorized to develop.

Secondary in evolution. In addition to the ego being a secondary process to impulse and instinct, and a secondary developmental step, it is possible that the evolution of the ego was also secondary to other processes. The system involved with creating instinctual or impulsive behavior is quite consistent and fairly efficient in terms of speed and energy use (Gailliot et al., 2007). In contrast, ego functions are among the most physiologically expensive cognitive processes performed by the human mind, and they are typically implemented inconsistently (Baumeister, 2008; Schmeichel, Vohs, Baumeister, 2003; Gailliot et al, 2007; Gailliot & Baumeister, 2007; Gailliot et al., 2009). For example, overruling an impulse to act out in anger might sometimes be successful and sometimes not. In some cases, purposeful effort and even

anger management strategies are needed to override impulses stemming from anger. However, the initial reaction of anger tends to occur pretty quickly and consistently, and does not tend to require the same purposeful effort as anger management.

Baumeister (2008) suggests that the relative inefficiency of such secondary systems might be because the impulse-override system evolved after the instincts from which impulses originate, such that the instinctual systems have had a longer time to be refined through natural selection. The system of controlling impulsive outputs of instincts may have been selected for later in human evolution as a particular strength for living in a culture or social group, which themselves became advantageous for human survival (Baumeister, 2008).

Because of their later ontogenetic development, the components of the brain that involve controlled responses may not be well integrated with the components that involve automatic responses. This could help explain the inefficiency and inconsistency of self-control functions (Baumeister, 2008).

Further evidence for the timing of the evolution of ego functions may be found in how cognitive impairment typically manifests. When cognitive impairment occurs, processes such as self-control and impulse override are typically the first to deteriorate (Gailliot et al., 2007). Under the “last-in, first-out” rule, cognitive functions that are evolved most recently are the first to become impaired when cognitive or physiological resources are limited (Gailliot et al., 2007). Thus, ego functions such as self-control and impulse override might be secondary to instinct not only in the course of human development and in the processing of thoughts and behaviors, but also in the course of human evolution.

Ego as a self-regulator. Self-regulation has been described as “a highly adaptive, distinctively human trait that enables people to override and alter their responses,” (Baumeister, Gailliot, DeWall, & Oaten, 2006). This seems similar to the ego’s role in regulating internal experiences such as impulses from the id (A. Freud, 1966, p. 7; p. 31; p. 69; Pine, 1990, p. 203). One form of self-regulation could be the override of impulses from the id, as suggested in Libet’s (1999) study of the timing and origin of cognitions relating to impulse override. Indeed, empirical studies suggest that ego depletion- a temporary reduction in ego or self-control- has been found to moderate the relation between intrinsic personality traits and outward behavior (Baumeister, Gailliot, DeWall, & Oaten, 2006). Ego depletion also seems to play a role in regulating aggressive behavior (DeWall, Baumeister, Stillman, & Gailliot, 2007) and selfish impulses (DeWall, Baumeister, Gailliot, & Maner, 2008). These findings seem similar to how the ego is theorized to act as a mediator between the id and the external world. If conflicts between the id and the external world become conflicts between the id and the ego, then changes in ego would alter how impulses are expressed: if they are successfully managed or not (Fenichel, 1945, p. 130; Pine, 1990, p. 203).

Self-regulation may also be thought to involve emotion regulation, as impulse control and emotional state seem to interrelate. Emotional distress has been found to relate to weakened impulse control, and positive affect is related to greater impulse control (Tice, Bratslavsky, & Baumeister, 2001; Tice, Baumeister, Shmueli, & Muraven, 2007). The relation between impulse control and emotional distress seems to be moderated by belief that emotional state is frozen or changeable, such that if people believe impulsive behaviors will lessen their emotional distress,

they are more likely to be impulsive in order to regulate their distress (Tice, Bratslavsky, & Baumeister, 2001). Overall, a weakened ego may be associated with difficulties in regulating one's affect and impulses (Mishne, 1993, p. 191).

Ego as a decision maker. From studies of constructs such as ego depletion, self-control, and willpower, it seems that decision-making is another function of the ego. Baumeister (2002) proposes that that impulsive purchasing is related to a depletion of self-control that is a result of decision-making required in a store setting. For example, the act of weighing the consequences of an impulsive purchase may deplete the ego and make the impulsive behavior more likely. Vohs, Baumeister, Schmeichel, Twenge, Nelson, and Tice (2008) clarified the difference between considering options and making decisions in terms of how one's ego is affected. In a nine experiment study, Vohs et al. (2008) tested the relation between decision making and executive functions such as self-regulation and self-control. They found that the act of making a decision was more taxing on self-resources than the act of considering options or preferences without making a decision. Making decisions was found to induce ego depletion, and worsen self-control and willpower (Vohs et al., 2008). This effect could be moderated by conditions under which choices are made: choices made when people experience autonomy may not deplete the ego, whereas choices in situations perceived as forced or controlled may lead to ego depletion (Moller, Deci, & Ryan, 2006).

Ego defenses

Ego defense mechanisms can be thought of as a type of coping mechanism (Vaillant & Vaillant, 1992, p. 173; Vaillant, 1992, p. 43-44). Coping mechanisms for handling distress and

problems can include social supports, cognitive strategies, and defense mechanisms (Vaillant, 1992, p. 43; p. 91). Social support involves seeking help from others, and using community resources (Vaillant, 1992, p. 43). Conscious cognitive strategies are skills that can be voluntarily implemented in response to situation or stressor; cognitive strategies are also skills that can be taught (Vaillant, 1992, p. 43; p. 91; McCullough, 1992, p. 172). Ego defense mechanisms, in contrast, can be thought of as intrapersonal dispositions that are automatic responses to distress (Vaillant, 1992, p. 91).

There are several characteristics that define ego defense mechanisms, as opposed to other coping mechanisms. First, defense mechanisms are involuntary and automatic (McCullough, 1992, p. 172; Vaillant, 1992, p. 91). Therefore, they are not deliberate efforts to avoid affect (Clark, 1998, p. 11). Also, defensive responses are immediate and can become habitual (Clark, 1998, p. 11).

Second, defense mechanisms occur in response to intolerable conflict and affect (Clark, 1998, p. 10). In a classic psychoanalytic sense, defenses are used to handle anxiety that results from internal conflict between the id (instinct) and the ego (reality and reason) (Clark, 1998). A broader definition of ego defense includes the use of defense mechanisms to handle any difficult or distressing affect (Clark, 1998)

Third, defense mechanisms are mostly, if not entirely, unconscious (Vaillant, 1992, p. 91; Clark, 1998, p. 9). Defense mechanisms typically occur outside of conscious awareness (Clark). However, they can be brought into conscious awareness, such as through self-awareness and insight (Vaillant, 1992, p. 44).

Fourth, defense mechanisms are subjective distortions (Clark, 1998, p. 9). They represent perceptions of reality or internal experience that are irrational and inaccurate.

Although the discussion of ego defense mechanisms may at times appear to focus on pathology, the existence of ego defense system can be thought of as an adaptive system for coping with conflict within the self, and for coping with discrepancies between one's inner desires and the external world, which may prevent such desires from being fulfilled (Vaillant, 1992, p. 33). Healthy ego defense systems involve access to a variety of defenses, whereas problematic systems are characterized by inflexible defenses or sets of defenses (Clark, 1998, p. 10). Thus, ego defense mechanisms are not inherently healthy or unhealthy. Rather, health is determined by the flexibility and success of one's ego defense mechanisms in managing inner conflict and distressing affect.

In classical psychoanalytic theory, the purpose of ego defenses has been theorized to be management of conflicts that occur between instincts that originate from different parts of the self's structure (Fenichel, 1945, p. 130). The expression of energy from the id is known in classical psychoanalytic terms as cathexis. The ego's opposition to such expression is a counter-cathexis. When the ego and id are in conflict, the ego may make use of defenses if the conflict cannot be resolved. The ego's inability to resolve the conflict and ease internal tension or anxiety can result in external symptoms (Fenichel, 1945, 130).

In classical theory, within the self, the superego will pair with either id or ego in a conflict (Fenichel, 1945, p. 132). It does not operate on its own against the id or ego. If the superego sides with the ego in opposition to the id, then ego defenses are likely to be motivated

by feelings of guilt (Fenichel, 1945, p. 132). If the ego is in conflict with instincts from the id and simultaneously with "anti-instincts," from the superego, then the ego will form a double counter-cathexis against both the impulses of the id and the unreasonable expectations imposed by the superego (Fenichel, 1945, p. 132; 290; 397). This can result in an individual being psychologically stuck, as the wishes presented by the id and superego are both untenable in the individual's experience of reality.

In addition to managing conflict within the self, defense mechanisms may occur in response to unpleasant or unacceptable instinctual drives and affect (Fenichel, 1945, p. 161). Affect such as anxiety, including death anxiety, guilt, disgust, and shame might be managed by the use of defense mechanisms (Fenichel, 1945, p. 132; p. 134; p. 138; 161; Hui, Bond & Ng, 2007).

Ego defenses are theorized to vary in terms of maturity or adaptivity. Maturity reflects both the developmental stage in life with which a mechanism is associated, the success of the mechanism in handling inner conflicts and affect, and the types of consequences that tend to result from the use of a particular defense mechanism. Empirical evidence suggests that ego defense maturity may relate to personality disorders, depression, eating disorders, and anxiety disorders (Bond, 2004). Ego defense maturity also seems to relate positively to age (Bond, 2004).

Finally, it should be noted that defenses, like the concept of id, ego, and superego, are metaphors for internal processes. Defining and categorizing defenses is helpful for research and communication purposes, but the system of defense mechanisms is ultimately a representation of

complex internal processes (Vaillant, 1992, p. 23; p. 41).

Types of ego defense mechanisms

According to early psychoanalytic theory (Fenichel, 1945, p. 141), and still prominent in current thinking (e.g., Bond, 2004), the maturity of a defense relates to how successful a defense it is. Successful defenses stop direct expression of an impulse that the ego has deemed necessary to override. Unsuccessful defenses require repeated efforts to keep impulses from breaking through the defense. These unsuccessful defenses are thought to lead to neurotic conditions. Less mature defenses seem to be associated with how early in childhood the defense develops. Denial, for example, is considered to be quite primitive because it is associated with conditions in infancy and very early childhood when a child has few options in terms of physical and psychological movement, and so can only react to external threats to the self by denying them (A. Freud, 1966, ch. 8).

Findings from Vaillant, Bond, & Vaillant (1986) suggest a hierarchy of ego defense maturity in which defenses are categorized as immature, intermediate, and mature. The Vaillant (1992) system of categorization takes ego defense maturity into account by sorting defense mechanisms within each category in order of maturity. Relations between ego defense maturity and personality disorders, developmental maturity, psychopathological symptoms, resilience, and treatment outcome have been found in several studies (Kramer, De Roten, Michel, & Despland, 2009; Bond, 2004; Bond & Perry, 2004; Vaillant & Vaillant, 1992; Vaillant, 1985). The Vaillant (1992) categorization system also informed the Bond (1992) Defense Style Questionnaire (DSQ). The DSQ has been found to relate to observer's ratings of ego defense mechanisms (Van,

Dekker, Peen, Abraham, Schoevers, 2009; Vaillant, Bond & Vaillant, 1986; Vaillant & Vaillant, 1992), and has been validated for use with adolescents. It also has been translated and validated in Italian and Portuguese (Ruuttu, Peloknen, Holi, Karlsson, & Kiviruuu, 2006; San Martini, Roma, Sarti, Lingiardi, & Bond, 2004; Blaya et al., 2007).

In considering types of ego defense mechanisms, it may appear that nearly all types of human internal experience and external expression could be considered ego defenses. For example, *humor* can be considered a mature ego defense mechanism. However, this does not mean that all instances of humor are ego defense mechanisms. Rather, only in cases in which humor is used by the ego to manage impulses and anxiety around those impulses would humor be considered an ego defense mechanism.

Immature ego defenses. Immature defenses are considered healthy in children ages 3-15. They are also common in adult dreams and fantasies, and in adults with personality disorders or other severe psychological problems. Within the framework of the ego's role of representing reality, these immature defense mechanisms suggest a misrepresentation of reality. Immature defenses may develop into more mature defenses through maturation, improved environment or relationships, or psychotherapy (Vaillant, 1992; p. 243-244).

Projection. Projection occurs when one erroneously perceives one's own unacceptable urges or affect in another person (Vaillant, 1992, p. 75; p. 243-244). When the perception reflects delusions about reality, the defense is considered a psychotic form of projection (p. 243).

The origin of projection can be found at the earliest stages of development of the ego, when infants learn to distinguish what is edible versus inedible (Fenichel, 1945). Edible objects

are accepted, whereas inedible objects are spit out (Fenichel, 1945, p. 146). The same effect applies to emotion: the act of warding off threatening affect results in those feelings being experienced as outside and separate from the self (Fenichel, p. 146). The implementation of projection in adulthood would suggest dysfunctional reality-testing. As a result, one's undesirable feelings are perceived to exist in another person, and one acts accordingly, generally by being repulsed by the recipient of the projected affect.

A related defense to projection is projective identification, which is characterized by an interpersonal dynamic that follows a three-phase sequence (Clark, 1998, p. 108). First, as with projection, one perceives one's unwanted affect in another. Then, through interpersonal behavior, one provokes the same unwanted qualities in the recipient of the projection. Finally, one identifies with the recipient because of the unwanted qualities that were both projected onto the recipient and provoked in the recipient. The identification with the recipient results in the projector being drawn to him or her, so a relationship between the projector and recipient persists, further provocation occurs, and the dynamic repeats itself (Clark, 1998, p. 108). With projection, one is repelled by the perceived unwanted affect projected onto another person, but with projective identification, one feels drawn to the other person because of vicarious identification with the projected qualities (Clark, 1998, p. 108).

Schizoid fantasy. The schizoid fantasy is characterized by having one's relational needs, aggression, and sexual impulses met through fantasy or daydreaming, at the expense of gratification through reality (Vaillant, 1992, p. 244). Unlike projection, the schizoid fantasy does not distort reality. The fantasies are understood to be made up. However, the fantasies are used

as a substitute for reality, and as a result, actual interpersonal intimacy is avoided (Vaillant, 1992, p. 244)

Hypochondriasis. Hypochondriasis forms when aggressive impulses, anger, or sadness are directed at others, but acknowledging or expressing these impulses is unacceptable to the self. The ambivalent feelings present in such reproach of others are internalized into self-reproach. The self is then experienced as damaged or diseased, which is expressed as somatic ailments.

Unlike hysterical somatic complaints, which are associated with seeking secondary gains such as sympathy and caring, hypochondriac complaints are associated with covert punishment of caregivers. Hypochondriasis conceals aggression towards others, and its manifestation in complaints that can never be truly cured or treated lead to frustration between patient and caregiver. Caregivers may experience anger, guilt, and rejection due to failure to "cure" a hypochondriac patient. These negative feelings in the caregiver-patient relationship support the patient's pre-existing anger and reproach of others (Vaillant, 1992, p. 73).

Passive-aggression/Regression. The passive-aggressive defense mechanism is also known as masochism, self-sacrifice, and regression (Vaillant, 1992, p. 79; Fenichel, 1945, p. 160). It features hostility towards others that cannot be expressed directly or openly, so it comes to be expressed by self-defeating or self-destructive behavior (Vaillant, 1992, p. 79-80). Behavioral examples include procrastination and cutting. This defense is caused when instincts seek satisfaction by finding a substitute when direct satisfaction is not possible (Fenichel, 1945, p. 160). This substitution is what would have been gratifying to the self at an earlier stage of

development because current gratification of impulses is not possible (Fenichel, 1945, p. 160). Hence the self regresses to an early stage of development in order to experience gratification. This defense style is associated with a passivity of the ego because instinctual impulses are not truly overridden by the ego (Fenichel, 1945, p. 160).

Acting out. Acting out is an open expression of an unconscious desire or impulse in order to avoid the conscious experience of the affect associated with the impulse (Vaillant, 1992, p. 245). Examples include physical assaults, tantrums, and child abuse (Vaillant, 1992, p. 77). Direct expression of hostile feelings serves as way to undermine or prevent any attempts at interpersonal intimacy (Vaillant, 1992, p. 77). One who acts out may in actuality be terrified of dependency on others (Vaillant, 1992, p. 78).

Denial/dissociation. The purpose of denial is to negate painful sensations (Fenichel, 1945, p. 145). It is a way to protect the self from external threats that cannot be otherwise acted against (A. Freud, 1966, p. 174). In psychotic denial, perception of an unacceptable reality is altered to match one's internal reality. This form of denial is associated with infancy and very early childhood, when there are limited or no options for adaptation to one's environment other than denial (A. Freud, 1966, ch. 8). Denial of an impulse or experience is in direct conflict with the ego's perception of reality, including memory. Therefore, the weaker an ego, the more likely that denial will be used (Fenichel, 1945, p. 145).

Neurotic denial is also known as dissociation (Vaillant, 1992, p. 81). Dissociation differs from psychotic denial in that instead of altering perception of reality to cope with unacceptable affect or experiences, one's experience of the self is altered (Vaillant, 1992; p. 81; p.245).

Unacceptable feelings or thoughts are kept out of awareness. Risky, dramatic behavior might be used as a way to find relief against one's underlying pain and distress.

Intermediate/Neurotic ego defenses. The neurotic defenses are considered common and relatively healthy in people from age 3 through late adulthood. These defenses are also common in people who have neurotic disorders, or who are experiencing significant stress. Neurotic defenses involve the alteration of internal experience of affect and impulses. People may experience neurotic defenses as quirky character traits, rather than as psychopathology. Psychotherapy, including brief psychotherapy, is a possible means of changing intermediate defenses into more mature defenses (Vaillant, 1992, p. 246).

Repression. "The essence of repression lies simply in the function of rejecting and keeping something out of consciousness" Freud (1915/1959, vol. 4, p. 86). Repression is an unconscious, purposeful forgetting or non-awareness of impulses or experiences that are unacceptable to the self (Fenichel, 1945, p. 148). Rather than altering perceptions of reality as is the case with denial, repression involves altering experiences of internal instincts and affect (A. Freud, 1966, p. 174; Vaillant, 1992, p. 246). Repression can also be thought of as a component of the other defenses, as they tend to involve some form of rejecting unacceptable affect or qualities within the self.

Displacement. If a feeling cannot be expressed towards one object, then the feeling is redirected to a different, available object (Fenichel, 1945, p. 163). A common example of displacement is "kicking the dog when angry with the boss." In this example, an angry outburst towards one's boss is unacceptable, whereas the dog is considered a safer target. Displacement

features feelings that are redirected to safer objects than the original target of the feelings (Vaillant, 1992, p. 246). However, one's feelings are at least experienced and expressed to some extent, compared to less mature defenses in which affect or internal experiences are denied or altered.

Reaction formation. When an attitude is taken that expresses the opposite of what an unacceptable impulse or experience might suggest, that is considered a reaction formation (Fenichel, 1945, p. 148). The countercathexis to the impulse is overtly expressed or experienced (Fenichel, 1945, p. 151). One might experience this as conscious behavior or feelings are opposite of an unacceptable instinct or impulse (Vaillant, 1992, p. 246). This defense protects the self from experiencing repressed impulses from within (A. Freud, 1966, p. 174). A common example of a reaction formation is "identification with the aggressor" (Vaillant, 1992, p. 246): when it is unsafe for a victim's to express anger and hate with a bully or abuser, the victim may instead express love or positive feelings as a way to keep the anger and hate from coming out.

Intellectualization/isolation. Intellectualization involves the expression of instinctual impulses in bland, formalized terms; the associated affect still remains unconscious (Vaillant, 1992, p. 246; Sammallahti, 1995). This defense includes isolation, rationalization, undoing, and magical thinking (Vaillant, 1992, p. 247; Vaillant, Bond, & Vaillant, 1986). One's focus tends to be on inanimate ideas at the expense of interpersonal intimacy, or on external reality to avoid unacceptable internal experiences (Vaillant, 1992, p. 247).

Isolation in particular is a separation between an impulse or experience and the related emotion. For example, a man who cannot experience sensuality and tenderness simultaneously

might separate these aspects of his sexuality (Fenichel, 1945, p. 156). Isolation can also include the experience of splitting oneself, which is considered by Sammallahhti (1995) to be a separate, less mature defense. In cases of splitting, an unacceptable experience or impulse is kept separate from the rest of the person (Fenichel, 1945, p. 157).

Mature ego defenses. Mature ego defenses are common in healthy individuals from early adolescence through adulthood and late adulthood (Vaillant, 1992, p. 247). They can be thought of as ways that the ego successfully manages impulses from the id, meaning that the ego integrates one's internal experience with reality and interpersonal relationships. Mature ego defenses generally involve expressing energy from the id in a helpful, productive, or creative way. In some ways, mature ego defenses allow for awareness of one's impulses and troubling affect. This is evident for defenses such as suppression, which involves conscious handling of troubling thoughts and feelings. In other cases, however, one may not be aware of the underlying impulses that inform one's altruistic or meaningful outputs. During times of stress, mature ego defenses may give way to less mature defenses. Mature defenses in Vaillant's (1992) system can also be thought of simply as positive coping strategies (see Vaillant, 2000), but because they do involve management of impulses from the id, they are considered ego defense mechanisms for the purposes of this study.

Altruism. "Altruism comes from the badness in our hearts" (Anna Freud, quoted by Vaillant, 1992, p. 19). Altruism is service to others that is based on others' real (not projected needs), and that gratifies instinctual impulses (Vaillant, 1992, p. 247). While it is similar to reaction formation in that an impulse is expressed as its opposite, reaction formation does not

gratify one's instincts (Vaillant, 1992, p. 247).

Humor. Humor involves feelings that are expressed openly and directly without discomfort or negative effects on others (Vaillant, 1992, p. 247). Colloquially, humor might involve veiled hostility or distraction from discomfort, but the form of humor considered a mature ego defense is neither hostile nor is it truly distracting from affect.

Suppression. When conflicts are experienced consciously, but action and affect are postponed, that is known as suppression (Vaillant, 1992, p. 247). Unlike with repression, suppression handles conflicts and affect consciously, and one's response is delayed rather than forgotten (Vaillant, 1992, p. 247). For example, choosing to deal with distress at a different time (e.g., after work) can be a form of suppression.

Anticipation. Anticipation is realistic, goal-directed planning for distress (Vaillant, 1992, p. 248). It includes anxiety or worrying that is realistic, and using insight to plan for handling distress (Vaillant, 1992, p. 248).

Sublimation. Sublimation is considered a successful defense (Fenichel, 1945, p. 141; Vaillant, Bond, & Vaillant, 1986). This is because instincts are expressed indirectly without causing negative consequences. Instead of blocking instincts, which is the case for neurotic defenses, sublimation channels instincts such that affect is consciously acknowledged (Vaillant, 1992, p. 248). An impulse is not opposed by the ego, but is instead directed by the ego to in a way that both satisfies the impulse and is acceptable to the ego (Fenichel, 1945, p. 142).

Like altruism, sublimation can seem similar to reaction formation. However, in a reaction formation, the underlying impulse or desire is still present in the unconscious, and requires a

strong defense to keep it from being enacted. With sublimation, the impulse is successfully discharged, and does not require constant, repetitive defense because the impulse is no longer present after discharge (Fenichel, 1945, pp. 151-153).

In summary, ego defense mechanisms range in adaptivity and maturity: some are healthier than others, in terms of efficacy in handling affect and inner conflict. Ego defense maturity reflects the ego's capacity for observing and adapting to reality, impulse control, and self-regulation. Thus, people who tend to use more mature ego defense mechanisms are likely to be more successful at handling distressing affect and instinctual impulses. Patterns of ego defense mechanism use may change over time as a person matures (e.g. Vaillant, 1992), but such patterns seem to become trait-like personality characteristics (e.g., Kennedy, Schwab, & Hyde, 2001). Although such patterns are relatively stable, they are also amenable to improvement through psychotherapy (Kramer, De Roten, Michel, & Despland, 2009; Bond & Perry, 2004). Despite considerable scholarly work on ego defense mechanisms and related unconscious processes (e.g., Libet, 1999), some aspects of the unconscious processes proposed in ego defense theories may prove difficult to test. For example, assessment of the practical or observable difference between humor as an ego defense versus humor for non-defensive purposes might require observation of intrapsychic processes that is not yet possible with current research methods.

Ego depletion

Patterns of ego defense mechanism use may be fairly stable across time, especially without any effort made to change one's defenses. However, as noted in the previous section on

mature defenses, times of stress can cause mature defenses to give way to their less mature counterparts (Vaillant, 1992, p. 247). This situational-based variability of ego defense mechanism use suggests that ego may have some state-like characteristics as well.

Baumeister, Bratslavsky, Muraven and Tice (1998) suggested that, although there is evidence of trait-like capacity, the part of the self that is responsible for ego functions is a limited resource that can be affected by situational factors (e.g., Baumeister, Gailliot, DeWall, & Oaten, 2006; Gailliot & Baumeister, 2007a). The literature on this topic refers to this part of the self as ego, willpower, self-regulation, or executive function; components of this part of the self include self-control, temptation resistance, and impulse override (Baumeister, Bratslavsky, Muraven & Tice, 1998; Baumeister, Vohs, & Tice, 2007; Muraven & Baumeister, 2000; Tice, Bratslavsky, & Baumeister, 2001). Although these terms are not completely interchangeable, they seem to refer to various functions that match psychoanalytic conceptualizations of the ego. Indeed, Baumeister, Bratslavsky, Muraven & Tice (1998) quote Freud's definition of the ego to help explain the concept of volitional acts.

In this line of research, the ego is often compared to a muscle: ego can be momentarily worn out, and it can be strengthened over time with practice (Muraven & Baumeister, 2000; Baumeister, Vohs, & Tice, 2007). Ego functioning also seems to be linked to a finite physiological factor: glucose in the blood (Gailliot & Baumeister, 2007a; Gailliot et al., 2007; Gailliot, Peruche, Plant, & Baumeister, 2009). Ego can also be restored or boosted in response to situational factors and physiological interventions (Tice, Baumeister, Shmueli, & Muraven, 2007; Schmeichel & Vohs, 2009; DeWell, Baumeister, Gailliot, & Manor, 2008). The ego is

viewed as a limited resource that requires energy to function (Muraven, Tice, & Baumeister, 1998). Any tasks that are associated with executive function could both deplete the ego, and be diminished by a depleted ego.

Tasks or situations that have been found to deplete the ego include persistence at unrewarding or unpleasant tasks, decision-making, thought suppression, emotion suppression, and self-presentation (Baumeister, Bratslavsky, Muraven, & Tice, 1998; Muraven & Shmueli, 2006; Tice, Baumeister, Shmueli, & Muraven, 2007; Gailliot, Schmeichel, & Baumeister, 2006; Vohs, Baumeister, & Ciarocco, 2005). Subsequent to performing such tasks that deplete the ego, people are less likely to persist at difficult tasks, volunteer to help others, use logical reasoning, resist temptation, manage death anxiety, be honest, or control sexual and aggressive impulses (Mead, Baumeister, Gino, Schweitzer, & Ariely, 2009; DeWall, Baumeister, Stillman, & Gailliot, 2007; DeWall, Baumeister, Gailliot, & Maner, 2008; Gailliot, Schmeichel, & Baumeister, 2006; Muraven, Baumeister, & Tice, 1999; Gailliot & Baumeister, 2007b; Muraven & Shmueli, 2006).

From a state of ego depletion, there are several interventions that have been found to restore the ego. Positive affect- induced from a video or from receiving a gift, for example- has been found to restore willpower after it has been depleted (Tice, Baumeister, Shmueli, & Muraven, 2007). Positive self-affirmations can also restore one's ego (Schmeichel & Vohs, 2009). Part of glucose's relation to ego functioning includes a role in restoring and maintaining ego (Gailliot & Baumeister, 2007a; Gailliot et al., 2007; Gailliot, Peruche, Plant, & Baumeister, 2009).

Some ego functions have been found to have trait-like characteristics that vary across individuals, such as the type of temptations and impulses that require management (Baumeister, Gailliot, DeWall, & Oaten, 2006). For example, ego depletion resulting from resisting the temptation to drink was greater in those who have a high trait-based level of temptation to drink, compared to those with a low trait-based temptation to drink (Muraven & Shmueli, 2006). Thus, the effect of various tasks or situations on one's ego functioning may be mitigated by personal factors (Baumeister, Gailliot, DeWall, & Oaten, 2006). However, ego functions such as self-control can be improved with regular practice over time. Although there is evidence for trait-like aspects of self-control, self-control is also quite amenable to growth through regular exercise (Muraven, 2010; Muraven & Baumeister, 2000; Muraven, Baumeister, & Tice, 1999; Baumeister, Vohs, & Tice, 2007).

Although ego functioning has some trait-like influences, and in some cases can be improved with practice over time, ego nonetheless may vary depending on situational factors. One's ego could be in a state of depletion depending on physiological factors as well as behavioral antecedents. Considering the variety of situations in which ego depletion has been tested, ego functions such as self-regulation and willpower seem to be quite reactive to situational factors. Participants who have gone through ego-depleting tasks have significantly worse impulse control, task persistence, and affect management (Baumeister, Vohs, & Tice, 2007).

Ego: More than just a metaphor. Concepts of the ego from Freud and subsequent psychoanalytic theory seem to converge with research and theory on ego and related executive

functions in social psychology. In fact, the Freudian definition served as one of the theoretical foundations for modern social psychology research on ego functions (Baumeister, Bratslavsky, Muraven, & Tice, 1998).

A key conclusion from Gailliot et al.'s (2007) study on the physiological basis of ego depletion and self control was "willpower is more than a metaphor." Namely, the idea of ego- and ego depletion- has been shown to represent a psychological, neurological, and physiological process that responds predictably to situational factors and interventions such as exercise. Perhaps ego is also more than an abstract or philosophical metaphor: it is a way to describe real psychological and physiological processes that have been naturally selected for as advantageous in humans. The evolution of the ego seems to be linked with the development of culture, and the development of the ego follows a child's growth from an infancy to a mature, reasoning adult. Thus, ego may also reflect developmental and maturation processes.

Finally, given the link between ego defense maturity and neurotic behavior, and the link between ego depletion and diminished impulse control, it is not difficult to imagine the type of interpersonal behavior that might be exhibited from either immature defense patterns, or a depleted ego: impulsive reactions that are not successfully managed or controlled, likely with origins in unresolved inner conflicts.

Countertransference

In psychotherapy, a client's own unresolved inner conflicts, often stemming from early childhood experiences with primary caregivers, may color the client's perception of and reactions to his/her therapist. This phenomenon is known as transference. Therapist perceptions

of and reactions to a client that are colored by the therapist's own internal conflicts and past experiences are known as countertransference. In a recent meta-analysis of 10 quantitative studies on countertransference and outcome, countertransference was found to relate negatively to client outcome (Hayes, Gelso, & Hummel, 2011). Thus, understanding the causes of countertransference and how it might be managed could help psychotherapists improve client outcome.

History of definitions

Countertransference was first described by Freud as an analyst's distorted response (i.e., his or her transference) to a patient's transference; Freud expected that countertransference would interfere with an analyst's work with the analysand. (Freud, 1924). In contrast to Freud's view of countertransference as a hindrance to treatment, Winnicott (1947) suggested that countertransference might provide useful information to the analyst about a patient's inner conflicts. Despite this more accepting view of countertransference, countertransference may nonetheless carry a negative connotation (e.g., Daniel, 2009). The range of views on countertransference might be clarified by considering the range of definitions of countertransference. These may be categorized into five types: classical, totalistic, complementary, relational, and integrated (Gelso & Hayes, 2007).

Classical. Informed largely by Freud's psychoanalytic definition of countertransference, a therapist's or analyst's transference-based responses to client's transference are considered countertransference. These responses are considered to be based in unresolved conflict and occur mostly outside a therapist's awareness. In this view, countertransference is undesirable, as it is a

result of inner turmoil that may create distortions in a therapist's perception of and reaction to a client.

Totalistic. In contrast to Freud's negative view of countertransference, theoreticians such as Heimann and Berman described countertransference as all reactions- appropriate and defensive- of the therapist to the client (Singer, Sincoff, & Kolligian, 1989). This perspective on countertransference is known as totalistic, in that all therapist reactions are countertransference (Gelso & Hayes, 2007, p. 7). Countertransference is viewed as neither inherently desirable nor undesirable, as both desirable and undesirable therapist reactions are all considered countertransference. This approach to countertransference can be helpful in that therapist reactions are considered potentially valuable contributions to therapy (Gelso & Hayes, 2007). However, with such a broad definition, the distinction between countertransference and general therapist reactions disappears. Kiesler (2001) has suggested that a distinction between objective and subjective reactions might be helpful in further clarifying countertransference. Objective countertransference might be considered therapist reactions that are normal or healthy responses to clients, whereas subjective countertransference would be those reactions that are specific to the therapist's unique vulnerabilities. Gelso and Hayes (2007) suggested that the subjective definition of countertransference might be most useful in the study of countertransference. The objective countertransference is synonymous with therapist reactions to clients, and thus a different term referring to the same phenomena is not warranted.

Complementary. The complementary view of countertransference emphasizes how the interaction between client and therapist can result in therapist reactions that are inevitable (Gelso

& Hayes, 2007, p. 10). Clients are expected to “pull” certain reactions from therapists, and those reactions in turn create further reactions in the client and so on. This view of countertransference does not, however, emphasize vulnerabilities that may vary across therapists, which would affect how a therapist might respond to a client’s pull.

Relational. The relational perspective on countertransference suggests that the interactions between a patient’s and therapist’s dynamics and personality produce countertransference (Gelso & Hayes, 2007, p. 12). In this view, both the client and therapist contribute to the relationship, and the therapist’s countertransference is a result of how the relationship progresses. Gelso and Hayes (2007) note, however, that the relational perspective does not emphasize enough the role of characteristics of therapists and clients that persist across relationships. That is, the individual aspect of a therapist and client- their own core patterns- may play a greater role in countertransference than is suggested by the relational perspective.

Integrated. Singer, Sincoff & Kolligan (1989) considered countertransference to be like a therapist’s transference towards the client. Gelso and Hayes (2007) have proposed a similar definition of countertransference: “therapist's internal or external reactions that are shaped by the therapist's past or present emotional conflicts and vulnerabilities,” (p. 25). Unlike the classical definition of countertransference, the integrated definition accounts for therapists' reactions originating from unresolved inner conflict that are not solely in response to a client's transference; that is, the reactions could be in response to non-transference client presentation. This perspective emphasizes the intrapsychic influence of therapist reactions to clients. This definition also takes into account how the interaction between client and therapist might trigger

countertransference (p. 26; Hayes, Gelso, & Hummel, 2011).

The definition of countertransference has changed over time and across theoreticians (Singer, Sincoff & Kolligan, 1989). Considering the strengths and limitations that each definition presents, the present study will use the integrated definition. The integrated definition takes into account the therapist's contribution to countertransference, which helps to differentiate countertransference from general therapist reactions, and also takes into account the client's role in potentially triggering or pulling for particular therapist reactions.

Predictors

Factors that predict countertransference include therapists' vulnerabilities, client provocation, and dyadic interactions between a client and therapist. Therapists' vulnerabilities that have been found to predict countertransference include anxiety, loss history, and insecure attachment styles (e.g., Yulis & Keisler, 1968; Boyer & Hoffman, 1993; Mohr, Gelso & Hill, 2005).

Betan, Heim, Zittel Conklin, & Westen (2005) found that pathological personality characteristics in clients can trigger countertransference across therapists. Bright (2009) suggested that a client's regression might result in countertransference on the part of the therapist. Thus, in some cases, client's traits or relational patterns might evoke countertransference. However, as noted by Gelso and Hayes (2007), the variability in therapists' vulnerabilities makes identifying countertransference triggers that are completely client-based somewhat unproductive. Instead, countertransference might be better predicted by considering the interaction between clients' provocations and therapists' vulnerabilities.

Gelso and Hayes (2007, p. 40) posit that countertransference occurs in the context of a two-person interaction between the therapist and client. The countertransference interaction hypothesis posits that countertransference is the result of vulnerabilities in a therapist when reacting to triggering material from a client. Indeed, studying therapist vulnerabilities and client provocation together has been found to predict countertransference (e.g., Cutler, 1958; Gelso et al., 1995; Hayes & Gelso, 1993).

Research methods

Several research methods have been developed to facilitate the study of countertransference. Overall, countertransference might be measured by either observers or by therapists' self-report. Types of observers include trained observers who watch therapy sessions or listen to therapy tapes, or supervisors who can provide feedback on supervisee countertransference (e.g., Bandura, Lipsher, & Miller, 1960; Friedman & Gelso, 2000). Observers might code sessions to assess therapist patterns of responding to a client (e.g., Bandura, Lipsher, & Miller, 1960). Within self-report methods, therapist recall of particular key words from the client's speech can provide information about reactions to client material (e.g., Cutler, 1958; Hayes & Gelso, 1993). Therapists may also complete state anxiety and anger measures to assess their affective reactions to clients (e.g., Sharkin & Gelso, 1993).

Observer methods. Therapists' behavior towards clients might show signs of countertransference. Cutler (1958) had therapists' responses to clients from recording of a session coded in order to compare therapist's responses with therapists' interpersonal patterns or vulnerabilities that were previously determined. Another way behavioral coding might be used to

assess countertransference involves having therapists respond to standardized clients (e.g., Dubé & Normandin, 2007). In terms of what is coded, how much the therapist avoids provocative content from the client can indicate countertransference (e.g., Bandura, Lipshur, Miller, 1960). Withdrawal of personal involvement can also be indicative of countertransference (e.g., Peabody & Gelso, 1982; Robbins & Jolkovsky, 1987).

One method that is observer-based but does not involve coding therapist responses to a client involves having a predetermined set of possible responses to a standardized client, and asking the therapist to choose from the possible responses (e.g., Yulis & Kiesler, 1968). The statements could vary in level of personal involvement, as in Yulis and Kiesler (1968), or in approach-avoidance, using Bandura, Lipshur, and Miller's (1960) system. The level of countertransference that each response reflects is determined ahead of time by trained raters.

Another observer-based method that does not involve coding tapes compares a client's self-description, the therapist's description of how the client views himself, the therapist's self-description, and his description of his ideal self (e.g., Fiedler, 1951). Fiedler (1951) used a card sort of personality descriptors to compare how much a therapist over- or under- estimated similarity between himself and his client, and between his client and the therapist's ideal self.

Finally, a standardized measure of countertransference can be used to assess therapists' countertransference with a client. One such measure is the Inventory of Countertransference Behavior (ICB; Friedman & Gelso, 2000). The ICB includes negative and positive countertransference subscales to provide further description of the nature of a therapist's countertransference. Mohr, Gelso, and Hill (2005) modified the ICB to create the

Countertransference Behavior Measure (CBM). The CBM consists of items selected from the ICB through a maximum-likelihood factor analysis. Compared to the ICB, the CBM has more of a focus on interpersonal behaviors that occur during sessions.

Self-report. Because countertransference is based on therapists' unresolved inner conflicts, its source and even existence may occur outside of therapists' awareness. Thus, asking a therapist to report her own countertransference is as useful as asking a client to report her own transference. Neither approach appears to possess validity. However, there are several ways to use therapist self-report to try to assess possible countertransference.

Hayes and Gelso (1993) used a method of therapists reporting their memory of client material based on Cutler's (1958) finding that therapists may under- and over-emphasize client material that relates to the therapists' inner conflicts. Thus, therapists might be asked to estimate how many times the client said a particular word or key phrase, such as "die," and the comparison between the estimate and the actual number of times the client said the word might be indicative of countertransference. Therapist self-report of state anxiety and anger on standardized measures might also be used as an indication of affective countertransference (e.g., Hayes & Gelso, 1993; Sharkin & Gelso, 1993).

Countertransference management

Given the inevitable nature of countertransference and its relation to client outcome, it would be advantageous to find out how therapists might deal with countertransference in ways that lessen or prevent its negative effects on outcome. To this end, managing countertransference might involve both reduction in the likelihood of countertransference, as well as strategies for

handling it when it does arise in ways that do not interfere with the therapeutic work. Indeed, countertransference management might even help therapists make use of their reactions to gain a better understanding of their clients and therapeutic relationships (Gelso & Hayes, 2007, p. 93).

Countertransference management, as described by Gelso and Hayes (2007, ch. 5), addresses three areas of concern regarding countertransference: prevention of negative effects of countertransference; repair of harm caused by countertransference after it has occurred; use of countertransference in a positive way in psychotherapy. The positive relation found between countertransference management and outcome suggests that countertransference management might be effective in preventing or reducing harm from countertransference, and possibly in improving the course of therapeutic work (Hayes, Gelso, & Hummel, 2011).

Five factors that seem to encompass what countertransference management involves on the part of the therapist are self-insight, conceptualizing ability, empathy, self-integration, and anxiety management. This five-factor structure has been supported empirically in several studies (Van Wagoner, Gelso, Hayes, & Diemer, 1991; Latts, 1996; Gelso, Latts, Gomez, & Fassinger, 2002; Hayes, Riker, & Ingram, 1997).

Understanding one's own patterns, strengths and vulnerabilities might be thought of as a precursor to understanding how one perceives and interprets clients' feelings, thoughts, and actions. Self-insight can help therapists be aware of their biases and work to resolve them, which might reduce chronic countertransferential reactions to clients (Gelso & Hayes, 2007, pp. 95-97). Self-insight can also be helpful in situations when acute countertransference arises in response to a provocative client (Gelso & Hayes, 2007, p. 97).

Self-insight can help with countertransference management, but by itself is not as effective as when combined with other management factors. When combined interactively with self-insight, a therapist's ability to conceptualize clients increases the likelihood of successfully managing countertransference, compared to self-insight alone (Robbins & Jolkovski, 1987; Latts & Gelso, 1995). The development of a model of one's clients can help one to understand their reasons for acting as they do (Gelso & Hayes, 2007, p. 98). This kind of understanding can help decrease the likelihood of therapists taking it personally when clients act out or show resistance.

One fundamental factor in understanding clients is empathy (Gelso & Hayes, 2007, p. 98). Empathy allows therapists to sense clients' experiences and emotions as if they were the therapists' own (Rogers, 1957). By seeing a client's world more clearly, the therapist's understanding of the client becomes more complete (1957). This might reduce countertransference by keeping a therapist focused on the client's needs and feelings, and not the therapist's (Gelso & Hayes, 2007, p. 99).

A key part of empathy noted by Rogers (1957) is the as-if component of empathy. That is, as a therapist experiences a client's feelings, she understands that those feelings are not her own (Rogers, 1957). Maintaining this boundary is facilitated by self-integration. Self-integration might contribute to countertransference management by how it allows empathy to occur, but also because it reflects psychological health and stability (Gelso & Hayes, 2007, p. 99). Because countertransference tends to be triggered based on a therapist's unresolved conflicts, the less pervasive and severe those conflicts are, the better.

When an unresolved conflict is touched upon, however, anxiety that may result from this conflict can interfere with the therapist's work. If a client-therapist interaction triggers a reaction based on the therapist's vulnerability, anxiety might distract the therapist from the client, which could then lead to less productive interactions or to a rupture. Therapists who are less prone to anxiety or who can effectively manage their anxiety will be better able to handle countertransference reactions as they come up (Fauth & Nutt Williams, 2005; Gelso et al., 2002; Gelso et al., 1995; Yulis & Kiesler, 1968).

Overall, the components of countertransference management individually and collectively help prevent harmful countertransference, or at least mitigate the effects of the inevitable (Gelso & Hayes, 2007). Countertransference management can in some ways be thought of as trait-like, for example, trait anxiety likely relates to anxiety management, and self-integration might reflect traits involving psychological health. However, the components can also be thought of as part of the process of countertransference management. In this sense, they might reflect strategies that therapists use for managing countertransference, as well as therapists' ability to successfully enact each countertransference management strategy.

Ego, countertransference, and countertransference management

Countertransference involves reactions that stem from therapist vulnerabilities and unresolved conflicts. It is expected that the management of such reactions involves ego functions such as impulse control and willpower. Indeed, as noted by Gelso & Hayes (2007, p. 97), therapists may experience a loss in some countertransference management ability when they

are depleted, and restorative activities that bring rest or pleasure can help improve countertransference management.

Factors of countertransference management such as self-integration also suggest that a level of psychological health or maturity is necessary for successful countertransference management. Baumeister, Vohs, and Tice's (2007) conception of self-resources links together ego, willpower, and impulse control. It seems possible that the ego plays a role in regulating the kind of impulses that lead countertransference. Ego might also play a role in therapists successfully managing their countertransference. Considering the link between countertransference, countertransference management, and client outcome, it might be helpful to better understand possible vulnerabilities and situations that might affect countertransference.

Baumeister et al. (2007) in particular have identified situational factors that can deplete the ego, and the types of situations they have identified include problems that can arise in daily life, such as temptation, impulse control, and low blood-glucose levels. Thus, it is possible that during or immediately after situations that tax one's self-resources, therapists could be more vulnerable to countertransference. In addition to learning about the effects of situational factors on countertransference, it would also be helpful to take into account how therapist traits such as ego defense maturity and countertransference management play a role in their vulnerability to countertransference in situations in which their self-resources are taxed.

Chapter 3: Statement of the problem

The psychotherapy relationship and its components, as described in Gelso and Samstag (2008), have been found to relate to client therapy outcomes. Based on a meta-analysis and review of the literature, countertransference in particular has been found to negatively relate to client outcome (Hayes, Gelso, & Hummel, 2011). The result of the interaction between therapists' unresolved conflicts and clients' presentation, countertransference has been conceptualized to have both helpful and hindering components (Gelso & Hayes, 2007; Gelso & Samstag, 2008). The helpful components may be useful to a therapist for gaining insight about a therapeutic relationship, or for understanding the reactions a client might pull from others. The hindering components can result in acting out against or colluding with the client. These hindering aspects may also result in empathic failures.

Countertransference management is theorized to address how to make use of the helpful components of countertransference and also reduce the potentially hindering elements. Indeed, a meta-analysis of studies linking countertransference management to countertransference indicates a negative relationship between the two (Hayes, Gelso, & Hummel, 2011). Although few studies exist directly linking countertransference management to outcome, those that do exist clearly suggest a positive relationship (Hayes, Gelso, & Hummel, 2011).

Countertransference management has in some cases been conceptualized as a trait-like construct that can vary among therapists, and in other cases conceptualized as state-like and varying within a therapist (Gelso & Hayes, 2007; Nutt Williams, Hurley, O'Brien, & Degregorio, 2003). The present study uses the trait-like conceptualization, as described by Van Wagoner,

Gelso, Hayes, and Diemer, (1991). Thus, it is expected that countertransference management ability varies among therapists. Countertransference management has been theorized as consisting of five factors: self-insight, conceptualizing skills, empathy, self-integration, and anxiety management skills (Gelso & Hayes, 2007, p. 95). Self-integration, in particular, is considered a key component of countertransference management (Gelso & Hayes, 2007, p. 99). Self-integration suggests a low level or amount of unresolved internal conflicts during the treatment hour, as well as an ability to have healthy boundaries between therapist and client.

It is possible that qualities that vary within therapists could also relate to countertransference. One such quality that has been found to be state-like and within a person's control are ego functions such as willpower. These types of ego functions have been described by Baumeister, Vohs, and Tice (2007) as vulnerable to depletion, but also capable of improvement with practice, described metaphorically as a muscle. Ego depletion, the converse of which is referred to as willpower (Tice et al., 2007; Baumeister et al., 2007), has been found to be related via executive function to impulse control, task persistence, emotion regulation, attention control, and task performance (Tice, Bratslavsky, & Baumeister, 2001; Tice et al., 2007; Gailliot et al., 2007; Vohs et al., 2008). Ego depletion tends to result from tasks that involve temptation-resistance, self-control, thought or emotion suppression, and decision-making.

Ego has been conceptualized from a psychoanalytic perspective as related to tasks such as impulse control, emotion regulation, reality-testing, and reasoning (Pine, p. 34; Mishne, pp. 15, 170, 191). In classical analytic theory, ego is thought to be in conflict with two internal

sources of urges. One is the id, an unconscious source of libidinal and aggressive drives. The other is the superego, which represents values and standards learned from parents and society (Mishne, p. 15, 173). Ego is also thought to develop as a child matures into adulthood. Similarly, executive function, which has been suggested to relate to ego, has been found to be associated with the development of the prefrontal cortex, which appears to not be fully matured until people reach their early 20s (Pinel, 2008).

Defense mechanisms used by the ego vary in terms of maturity, or psychological health (Vaillant, Bond, and Vaillant, 1986). Maturity is based on the period in development during which a defense typically becomes established. Defenses such as sublimation, suppression, anticipation and altruism are considered most mature (Vaillant et al., 1986; Kramer, De Roten, Michel, & Despland, 2009). Defenses considered intermediate in terms of maturity include displacement, repression, isolation, and reaction formation (Vaillant et al., 1986). Immature defenses include projection, schizoid fantasy, passive aggression, acting out, hypochondriasis, and dissociation. It is possible that therapists with low countertransference management ability, especially low self-integration, might rely on less mature defenses than do therapists with high countertransference management ability.

As ego defense maturity may relate to countertransference management, it is possible that ego depletion would adversely affect a therapist's likelihood of resisting countertransference-based impulses in the moment. Because some regular, daily tasks (resisting temptations; making decisions) can result in ego depletion (Baumeister et al., 2007), therapists might at times be at risk for conducting sessions with less capacity for impulse control and emotion regulation.

Decreased ego functions such as impulse control and emotion regulation could result in an increase in countertransference. This variability in risk for countertransference might be predictable based on therapists' ego depletion. Considering how ego can be depleted (e.g., Muraven, Tice & Baumeister, 1998; Vohs et al., 2008) or restored (e.g., Tice, Baumeister, Shmueli & Muraven, 2007; Converse & DeShon, 2009), it is possible that therapists could better control their in-session reactions by taking steps to prevent ego depletion, or to restore ego as needed.

Hypotheses and Research questions

1. Countertransference management will be negatively related to countertransference.

A recent meta-analysis suggests that there have been mixed findings regarding the existing research on countertransference management and countertransference, such that a relation may or may not exist between the two (Hayes, Gelso, & Hummel, 2011). The variety of countertransference and countertransference management measures are likely to play a role in the inconclusive nature of these findings. Among the studies cited in the meta-analysis that use the Countertransference Factors Inventory or a revision thereof as the measure for countertransference management, a negative relation seems to exist between countertransference management and countertransference (e.g., Friedman & Gelso, 2000; Hofsess & Tracey, 2010; Gelso, Fassinger, Gomez, & Latts, 1995; Hayes, Riker, & Ingram, 1997). Based on those findings, it is expected that countertransference management and countertransference will be negatively related in the present study.

2. *Countertransference management will positively relate to the maturity of a therapist's defenses.*

In Vaillant's (1992) system of categorizing ego defense mechanisms, defenses are thought to vary in terms of maturity. Ego defense maturity reflects psychological and developmental maturity, which seems linked theoretically to factors of countertransference management such as self-insight, self-integration, and anxiety management.

3. *Ego depletion level will negatively relate to overall countertransference reactions.*
 - a. *Therapists in the ego depletion condition will show more affective countertransference than those in the control condition.*
 - b. *Therapists in the ego depletion condition will show more behavioral countertransference than those in the control condition.*
 - c. *Therapists in the ego depletion condition will show more cognitive countertransference than those in the control condition.*

Countertransference is defined in the present study as reactions triggered by one's client that are informed, at least in part, by one's own unresolved inner conflicts. Such unresolved or conflicts may be indications of unsuccessful ego defenses. A depleted ego might mean weakened efficacy in handling impulses. Unsuccessful efforts by the ego to manage inner impulses can result in the unintended expression of impulses. In the therapeutic scenario, these impulses would present as countertransference. Therefore, ego depletion is expected to increase therapists' countertransference by depleting the therapists' internal mechanisms for impulse control.

4. *What is the effect of ego depletion on the relation between countertransference management and countertransference?*

Prior research has suggested that ego depletion can moderate the relation between traits and behavioral reactions (e.g., Baumeister, Gailliot, DeWall, & Oaten, 2006). In the present study, countertransference management is considered trait-like, whereas countertransference is considered a reaction or behavior. Baumeister et al.'s (2006) findings indicated that some traits are more vulnerable to depletion than others, but so far no research has been conducted on countertransference or countertransference management.

5. *What is the effect of ego depletion on the relation between ego defense maturity and countertransference?*

Similar to the previous research question, Baumeister, Gailliot, DeWall, & Oaten's (2006) findings regarding the moderation of traits and behavior by ego depletion might be applied to ego defense maturity and countertransference. In this case, ego defense maturity is considered trait-like, and countertransference is considered a reaction or behavior.

Chapter 4: Method

Participants

Participants were 45 psychotherapists under supervision, and 19 of these participants' supervisors. Therapist-participants ranged in age from 20 to 53, with a mean of 31 (6.79).

Twenty-nine of the therapists were women. Two were African American, 3 were Asian, 5 were Asian American, 2 were Hispanic, 28 were Caucasian American, and 5 were multiracial: African American, Asian, and Native American; Hispanic and Pacific Islander; Caucasian American and African American; African American and Hispanic; and African and African American. Twenty-seven were in graduate school in either clinical, counseling or school, psychology, 11 were on internship or in psychiatry residency, 4 were post-doctoral psychologists, and 3 were licensed practitioners engaged in peer supervision. Forty-two therapists had heard of tele-therapy prior to the study, while 3 had not. One therapist-participant's data was excluded from the study after it was determined that the participant was not a therapist and participated in the study by mistake.

There were 17 supervisor-participants; two supervisors completed measures for two supervisees each. Supervisor-participants ranged in age from 28 to 69, with a mean of 46 (16.30). Ten of the supervisors were women. One was African American, 1 was Asian, and 15 were Caucasian American. Eleven were licensed practitioners (1 masters-level counselor, 2 licensed clinical social workers, 8 counseling or clinical psychologists; 2 psychiatrists), 3 were post-doctoral psychologists, 1 was a post-graduate counselor, 1 was on internship, and 1 was in a supervision practicum in a counseling psychology doctoral program.

In previous studies of ego depletion, the sample size ranged from 30 to 71 participants (e.g., Converse & DeShon, 2009; Vohs, Baumeister, & Ciarocco, 2005; Gailliot, Schmeichel, & Baumeister, 2006). Previous countertransference analogue studies' sample sizes ranged from 17 to 67 (Bandura, Lipshur, & Miler, 1960; Gelso & Hayes, 1993; Latts & Gelso, 1995; Gelso, Fassinger, Gomez, & Latts, 1995).

Measures

Countertransference management. The Countertransference Factors Inventory-D (CFI-D) is a 21-item observer-report measure of therapist countertransference management based on the original CFI (Van Wagoner, Gelso, Hayes, & Diemer, 1991; Gelso, Latts, Gomez, & Fassinger, 2002). The CFI-D measures five factors that are viewed as the primary constituents of countertransference management: empathy, self-insight, anxiety management, self-integration, and conceptualizing skills. The coefficient alphas for the CFI-D have been found to be: total scale = .94; self-insight = .61; conceptualizing skills = .87; empathy = .88; self-integration = .71; anxiety management = .93; and (Gelso, Latts, Gomez, & Fassinger, 2002). The items are Likert-type with responses options ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). In the present study, the Cronbach's alpha for the total scale was .92.

Countertransference management as measured by the CFI-D, and the closely related CFI, has been found to relate positively to therapy outcome and therapist effectiveness, and negatively to countertransference (Gelso, Latts, Gomez, & Fassinger, 2002; Rosenberger & Hayes, 2002; Latts, 1997; Friedman & Gelso, 2000). The CFI-D can be found in Appendix A.

Ego defense maturity. The Defense Style Questionnaire (DSQ; Bond, 1992) is an 88 item self-report measure of defense style. The items are Likert-type with response options ranging from 1 (Strongly Disagree) to 9 (Strongly Agree). Each item reflects a particular defense mechanism, such as suppression or projection. The questionnaire also includes items intended to detect lying. Four defense styles were empirically derived using principal component factor analyses (Bond, 1992). These defense styles are, from least mature to most mature, maladaptive action, image-distorting, self-sacrificing, and adaptive. The test-retest reliabilities for each of the four styles range from $r = .68$ to $r = .73$ (Bond & Wesley, 1996). In the present study, the Cronbach's alpha for the overall scale was .84, for maladaptive action was .86, for image-distorting was .80, for self-sacrificing was .45, and for adaptive was .40. The intercorrelations between the style categories and overall defense maturity are presented in Appendix C.

The defense styles in the DSQ are based on Vaillant's (1986) empirically supported hierarchy of defenses. The DSQ defense mechanisms have been found to relate to observer-based ratings of defense mechanisms (Bond, 1992; Vaillant, 1986). The defense styles have been found to relate in theoretically predicted directions to measures of ego strength, ego development, and psychological health (Bond, 1992; Kennedy, Schwab, & Hyde, 2001; Bond, 2004). The DSQ has also been translated and validated in Italian and French (Martini, Roma, Sarti, Lingiardi, & Bond, 2004; Bonsack, Despland, & Spagnoli, 1998). A shortened form of the DSQ, containing 40 items, has been similarly validated, and has been translated and validated in Portuguese as well (Ruuttu, Pelkonen, Holi, Karlsson, & Kiviruusu, 2006; Blaya et al., 2007).

The full DSQ has better reliability than the DSQ-40, so the full version will be used in the present study. The DSQ can be found in Appendix B.

Ego depletion. To measure the effects of the ego depletion task, a three-item manipulation check will be used. These items have been found in previous studies to relate to behavioral manifestations of ego depletion (Converse & DeShon, 2009; Vohs, Baumeister, & Ciarocco, 2005; Gailliot, Schmeichel, Baumeister, 2006). The items are designed to assess effort (“I exerted a lot of effort during the previous tasks”), frustration (“I felt frustrated during the previous tasks”), and self-regulation exertion (“I had to exert self-control during the previous tasks”) experienced during the tasks. Each item is Likert-type with response options ranging from 1 (strongly disagree) to 5 (strongly agree). The Cronbach's alpha for this measure was $r = .62$. The Task Exertion measure can be found in Appendix E.

Brief Mood Introspection Scale. A number of ego depletion and willpower studies have used Mayer and Gaschke's (1988) Brief Mood Introspection Scale (BMIS) to account for the effects of mood (e.g., Baumeister, Bratslavsky, Muraven, & Tice, 1998; Converse & DeShon, 2009; Tice, Baumeister, Shmueli, & Muraven, 2007). The BMIS provides information regarding the arousal and valence of one's mood. In a study involving over 1500 participants, Mayer and Gaschke (1988) found support for the four subscales through factor analysis of the BMIS, and found that the BMIS correlated highly with other, longer mood inventories. The BMIS is a 16-item list of adjectives that represent eight mood states along four subscales: pleasant-unpleasant, arousal-calm, positive-tired, and negative-relaxed.

The internal consistency of the four scales tested by Mayer and Gaschke (1988) ranged from .58 to .83. The subscales used by Baumeister et al (1998) and Tice et al (2007) were pleasant-unpleasant and arousal-calm. The internal consistency in the present study for the pleasant-unpleasant subscale was .88, and for the arousal-calm scale was .40. The Likert-style response options for each item range from 1 (Definitely do not feel) to 7 (Definitely feel). The BMIS can be found in Appendix F.

Countertransference. Countertransference was measured using three dimensions: affect, behavior, and cognition. This approach to countertransference measurement was described in a review of countertransference research by Hayes, Gelso, and Hummel (2011).

Affect. The State-Anxiety scale of the State-Trait Anxiety Inventory-State (STAI-S; Spielburger, Gorsuch, & Lushene, 1970) was used as one measure of affective countertransference. The STAI-S has 20 items using Likert-type items with response options ranging from 1 (not at all) to 4 (very much so). The internal consistency coefficient for the STAI-S has been found to range from .83 to .92 (Gelso et al., 1995); in the present study, the internal consistency was .93. The STAI-S has been used in prior studies as one way to operationalize affective countertransference (e.g., Gelso et al., 1995; Hayes & Gelso, 1993). The STAI-S can be found in Appendix G.

The Death Anxiety Scale (DAS) was used as a second measure of affective countertransference, as the nature of the content of the scripted client's problems were related to terminal illness, mortality, and death. Hayes and Gelso (1993) used the DAS in a study of countertransference to measure therapists' death anxiety, and Gailliot, Schmeichal, and

Baumeister (2006) found that ego depletion increased participants' death anxiety, as measured by accessibility of thoughts about death, and the Death Anxiety Scale. The DAS a 15 item self-report questionnaire regarding feelings about death. Templar et al (2006) found a three-week test-retest reliability of $r = .83$, and a Kuder-Richardson Formula 20 internal consistency coefficient of $r = .76$. In the present study, the Kuder-Richardson Formula 20 internal consistency coefficient was $r = .63$

The DAS has been found to correlate positively with measures of psychopathology such as the anxiety scales on the MMPI, and correlate negatively with measures of good adjustment. Scores on the DAS have also been found to distinguish between patients who report concerns with death anxiety from control subjects (Templar et al., 2006).

The DAS has also been studied across cultures, having been translated into sixteen languages (Templar et al., 2006). Norms have been developed for both Likert-style response options, and true/false response options. The present study used the true/false response options because the most recent validation of the DAS used the true/false response style. The DAS is scored by creating a composite score from the sum of the responses to the items (Templar et al., 2006). The DAS can be found in Appendix D.

Behavior. The behavioral component of countertransference was measured using the Avoidance Index from Bandura, Lipsher, and Miller's (1960) system of coding therapist responses to clients in terms of approach or avoidance. Trained raters categorize each therapist response as either approach or avoidance, and then the number of avoidance responses is divided by the total number of responses (Fauth, 2006).

Bandura, Lipsker, and Miller's (1960) stated that approach reactions were verbal responses that "primarily designed to elicit from the patient further expressions of hostile feelings, attitudes, and behavior." Avoidance reactions were those that were "designed to inhibit, discourage, or divert the patients' hostile expressions." In addition to assessing reactions to client hostility, this system of coding therapist responses can be used to account for responses to a full range of affect, and as such has been used in subsequent studies of countertransference (e.g., Fauth & Hayes, 2006; Gelso & Hayes, 1993; Hayes, Riker, & Ingram, 1997; Latts & Gelso, 1995; Rosenberger & Hayes, 2002). Approach reactions to hostile feelings or behaviors include approval, exploration, instigation, reflection, and labeling. Avoidance reactions include disapproval, topical transition, ignoring, and mislabeling.

In the present study, three raters with bachelors degrees in psychology (two of the raters are currently first year psychology graduate students; the third works as an academic advisor) and prior training and experience with therapy verbal response coding systems were trained to code participants' transcribed responses. The coding training instructions and coding procedure can be found in Appendix K. Each speaking turn within a participant's response was divided into units (independent clauses), and each unit was coded into a type of approach or avoidance reactions. Based on the unitized coding, raters also coded each speaking turn with a turn-level approach or avoidance category. The ratings were used to calculate an Avoidance Index for each participant. The Avoidance Index is the ratio of the number of avoidance responses to the number of approach and avoidance responses. The correlations between each rater's Avoidance Index using the speaking turn ratings compared to the unit ratings were $r = .90, .93, \text{ and } .88, p <$

.001 for each rater. The inter-rater reliabilities between rater pairs for the Avoidance Index were $r = .74$, $.58$, and $.55$, $p < .001$. As in Latts and Gelso (1995), the coding from the rater whose ratings were insufficiently correlated with the others' ratings ($r = .58$ and $r = .55$) was dropped from further analyses. This rater also had the lowest correlation between the speaking turn and unitized ratings ($r = .88$),

The correlation between the speaking turn level and unit level ratings was strong for both raters, $r = .91$, and $r = .93$, $p < .001$ for both. In previous studies, speaking turn level ratings were analyzed; thus, the speaking turn coding will be used for all analyses in the present study. The inter-rater reliability of $r = .74$, $p < .001$ is comparable to the inter-rater reliabilities found in previous studies (e.g., Gelso & Hayes, 1993; Latts & Gelso, 1995; Fauth, 2005). The percentage of the raters' agreement regarding whether participants' responses reflected overall approach, avoidance, or neither was $.71$. One participant's responses to the client were not usable as the participant misunderstood the directions.

Cognition. The cognitive component of countertransference was measured using a test of recall of the content of the client's speech. Gelso, Fassinger, Gomez, and Latts (1995), Hayes and Gelso (1993) and Cutler (1958) described a system in which the therapist's estimate of the number of target words (such as "die," "sex," or "angry") said by the client are compared to the actual number of target words said by the client. The nature of the target words depends on the focus of a study; in the present study, because the client's main presenting concern was a terminal illness diagnosis, the target words were those related to the illness (cancer), and death. A team of trained raters counted the number of actual target words said by the client. The

absolute difference between the actual and estimated number of times words related to death (e.g., "dying") were mentioned by the client was divided by the number of times the words were actually mentioned. This produced a percentage that served as an index of cognitive distortion (e.g., Hayes & Gelso, 1993; Gelso, Fassinger, Gomez, & Latts, 1995).

Demographics questionnaire. Participants completed a demographics questionnaire. The questionnaire includes items about gender and ethnicity, as well as items about participants' training programs and clinical experiences. The demographics questionnaire can be found in Appendix H.

Procedure

Therapist-participants were recruited via email and word-of-mouth, and were asked to invite their supervisors to participate. Therapist-participants were informed of the experiment procedures and scheduled a time to participate. At their scheduled time to participate, participants completed informed consent forms and then began the computer program for running the experiment. Qualtrics, a secure web-based software program for running experiments, was used for presenting all stimuli and measures. Supervisor-participants were sent emails that included a web link to the supervisor questionnaires. If they did not respond, the therapist-participant was asked to remind the supervisor, and two reminder emails were sent to the supervisor. Therapist-supervisor pairs were scheduled to participate after they had been working together for at least 3 months.

Participants' supervisors completed the Countertransference Factors Inventory-Revised (CFI-D) in order to assess the participants' countertransference management ability. Supervisors

also completed the demographics questionnaire. Therapist-participants were scheduled to come in for the experiment. After reading and signing the informed consent forms, participants completed the Defense Style Questionnaire (Bond, 1992). Participants were then presented with the analogue client's intake summary and session notes from the fictional client's file. The client was presented as someone with whom the therapist met previously for two sessions.

The therapist-participants participated in an analogue experiment that tested how psychotherapists react to clients facing a potential terminal illness diagnosis. A client analogue was used so that the therapists would be presented with identical stimuli across the ego depletion and neutral conditions. There were two versions of the same client character portrayed by two different actresses. Believability of two actresses was rated in a pilot study involving 49 undergraduate psychology students. For believability, a cut-off score of 4 on a 1 (Not at all) to 5 (Extremely) scale was used. One of the two actresses rated in the pilot study did not meet this cut-off criterion, so another actress was auditioned and recorded. A team of three counseling psychology doctoral students, one advanced undergraduate psychology student, and one psychology professor rated this actress, whose believability was greater than 4.

The client analogue was a fictional client who was faced with a possible diagnosis of a terminal illness (nodular melanoma). The client was described as someone who originally came to psychotherapy to work on procrastination, so the terminal illness was a surprise to her, and was not part of her initial presenting concern. The client's intake summary, session notes, and script for the session that the therapist watched and responded to can be found in Appendix I. The psychotherapy scenario was presented as a tele-therapy case, so that watching a video of the

client and responding via computer seemed more realistic to the participants than watching a client video without context beyond being in a laboratory setting. Also, equipment such as a computer, monitor, speakers, and microphone that are required because of the nature of a video analogue are consistent with the expected context of a tele-therapy scenario.

Participants were then randomly assigned by the computer survey program to one of two different conditions: an ego depletion (experimental) condition or a non-depletion (neutral) condition. The ego depletion tasks for varying ego depletion level were based on the recommendation that such tasks be conceptually unrelated to the dependent variable being tested, in order to rule out alternate explanations for any changes in the dependent variable (R. Baumeister, personal communication, December 31, 2010). Also, two ego depletion tasks are often used in conjunction to create a stronger ego depletion effect than that of one task alone (e.g., Conversee & Deshon, 2009; Vohs, Baumeister, & Ciarocco, 2005; Gailliot, Schmeichel, Baumeister, 2006; Dewell, Baumeiser, Gaillott, & Manor, 2008; DeWall, Baumeister, Stillman, & Gailliot, 2007; Schmeichel et al., 2003). The tasks to be used for the present study were a Stroop task and a paragraph retyping task (e.g., Muraven, Gagné, & Rosman, 2008; Mead, Baumeister, Gino, Schweitzer, & Ariely, 2009).

The Stroop task involves participants naming the ink color of a color word (e.g., *blue* printed in red). Naming ink colors when they are incongruent with the color word has been found to require self-control because the meaning of a printed color word must be suppressed, which has been found to cause ego depletion (Mead, Baumeister, Gino, Schweitzer, & Ariely, 2009). In the depletion condition, congruent and incongruent color word pairs were presented. In the

non-depletion condition, congruent color words and colored shapes were presented (e.g., *blue* printed in blue; a square printed in red).

The second ego depletion task involved retyping a paragraph provided by the experimenter (e.g., Muraven, Gagné, & Rosman, 2008). The ego depletion condition involved participants being asked to retype the paragraph without the letter *e* and without hitting the space bar. The non-depletion condition involved retyping the paragraph as written. In both conditions, participants' typing was not visible on the screen, but a computer program recorded all keystrokes to monitor compliance with the instructions. The regulation of a fairly automatic task, in this case typing, has been found to require inhibition and self-control, and is therefore considered to be depleting (Muraven, Gagné, & Rosman, 2008). The paragraph used in the study was written by the author and is presented in Appendix J.

The order of the ego depletion tasks in the experimental condition, and the neutral tasks in the control condition, was counterbalanced to account for possible order effects. The participants completed the ego depletion Task Exertion measure after both of the tasks were completed in order to assess the efficacy of the depletion task (e.g., Baumeister, Bratslavsky, Muraven & Tice, 1998; DeWall, Baumeister, Gailliot, & Maner, 2008). The goal of the ego depletion procedure was to use up self-resources on the depletion tasks such that the participants have less energy to devote to inhibiting countertransference responses to the analogue client. These tasks were tested in a pilot study involving 49 undergraduate psychology students, and were found to cause ego depletion as expected.

The participants then watched a video of the client presenting for her third psychotherapy session, in which she disclosed waiting for test results about nodular melanoma, a particularly invasive form of cancer. The participants responded to the client at 12 pre-determined times, and were asked to respond to the clients as if she were a real client of theirs. The client spoke, and then the video paused, and participants were asked to respond to the client verbally; their responses were recorded. The pause lasted for as long as it took for a participant to respond to the client, and then the next video clip played. Responding via microphone, which was placed by the computer, more closely replicates the timing required in actual psychotherapy, whereas typing responses might have allowed for delay in responding and therefore inhibition of countertransference that would not be possible in real psychotherapy.

After the client video and therapist response section, participants completed the BMIS, STAI-S, the DAS, and a questionnaire asking them to recall of the number of target words spoken by the client. The order of these measures was counterbalanced.

Finally, participants completed a demographics questionnaire. Participants were debriefed and thanked for their participation. A small gift of appreciation for participating was given to each participant to help restore potentially depleted egos (e.g., Tice, Baumeister, Shmueli, & Muraven, 2007).

Chapter 5: Results

Descriptive statistics of main variables

The descriptive statistics of the main variables are presented in Table 1; the skew and kurtosis of the main variables are presented in Appendix J. The sample's mean Countertransference Factors Inventory (CFI-D) score of 4.01 (on a scale in which 1 is low and 5 is high), suggests that the sample's countertransference management overall was moderately high. Based on the responses to the Defense Style Questionnaire (DSQ), the sample's ego defense maturity was higher than patient norms, and mostly higher than non-patient norms, based on norms found by Bond and Wesley (1996). The DSQ can be used to produce an overall ego defense maturity score, as well as scores for subscales that reflect defense maturity styles that range from least mature to most mature. Compared to non-patient norms, the sample exhibited lower maladaptive action (least mature), and greater adaptive defenses (most mature); image distortion (second least mature) was comparable to the non-patient population; and self-sacrificing (second most mature) was higher than the non-patient population. Based on the correlations presented in the Measures section in Table 1, the defense style categories relate to overall defense maturity as would be expected, with the immature styles relating negatively to defense maturity, and the adaptive style relating positively to defense maturity.

The correlations between the countertransference measures are presented in Table 2. None of the measures were sufficiently correlated to allow them to be combined into a composite score for countertransference, and some relations were not as expected: e.g., avoidance was

negatively related to the DAS. These relations suggest that the countertransference measures were not consistent with each other and therefore could not be combined into an overall measure of countertransference.

Table 1. Descriptive statistics

Variables	Total		Control		Experimental	
	Mean	SD	Mean	SD	Mean	SD
Countertransference Factors						
Inventory	4.01	.49	4.01	.27	4.01	.60
Ego defense maturity	4.60	.31	4.67	.22	4.55	.35
Maladaptive Action	3.09	.73	2.86	.51	3.26	.82
Image-distorting	2.52	.89	2.61	.76	2.45	.99
Self-sacrificing	3.97	.83	3.74	.69	4.14	.90
Adaptive defenses	6.63	.86	6.93	.70	6.4	.94
Task Exertion	3.27	.84	2.81	.80	3.62	.70
Mood: pleasant-unpleasant	4.69	.90	4.81	.86	4.61	.93
Mood: arousal	3.34	.56	3.19	.54	3.45	.55
Death Anxiety	5.76	2.32	4.84	2.09	6.42	2.28
State Trait Anxiety Inventory-State	2.00	.49	1.97	.53	2.02	.47
Avoidance	.38	.21	.45	.20	.34	.22
Cognitive countertransference	1.19	1.78	.99	1.21	1.34	2.11

Note. The CFI and Task Exertion were rated on a scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). Ego defense maturity was rated on a scale from 1 (Strongly Disagree) to 9 (Strongly Agree). Mood was rated on a scale ranging from 1 (Definitely do not feel) to 7 (Definitely feel). Death Anxiety was rated on a 15 item true/false scale. The STAI-S was rated

on a scale ranging from 1 (not at all) to 4 (very much so). Approach-avoidance was a ratio of the number of avoidant responses divided by the total number of responses. Cognitive countertransference was an index score of a participant's estimate of the number of target words compared to the actual number of target words said by the client.

Table 2. Correlations of countertransference measures

	DAS	STAI-S	Approach-Avoidance
STAI-S	.26	-	-
Avoidance	-.31*	-.10	-
Cognitive	-.05	-.05	.29

Note. * $p < .05$

Manipulation check

Task exertion between conditions was significantly different with a very large effect size, $F(1,43) = 13.0, p = .001, \eta^2 = .23$. It is likely that the ego depletion condition was in fact depleting; this is comparable to previous research using similar depletion tasks. Pleasant-unpleasant mood state and arousal mood state were not significantly different between conditions, $F(1,43) = .16, p = .48; F(1,43) = .192, p = .67$, respectively. Thus, any differences between conditions are unlikely to be attributable to difference in mood.

Hypotheses and Research Questions

1. *Countertransference management will be negatively related to countertransference.*

The Countertransference Factors Inventory was not related significantly to state anxiety, death anxiety, approach-avoidance, nor cognitive countertransference, $r(19) = -.15, p = .54; r(19) = -.23, p = .36; r(18) = .01, p = .96; r(19) = .27, p = .27$, respectively.

2. *Countertransference management will positively relate to the maturity of a therapist's defenses.*

The Countertransference Factors Inventory was not related significantly to ego defense maturity, but the effect size was medium, $r(19) = .36, p = .15$.

3. *Ego level will negatively relate to overall countertransference reactions.*

a. *Therapists in the ego depletion condition will show more affective countertransference than those in the control condition.*

The hypothesis was partially supported. Therapists in the ego depletion condition did not have significantly greater state anxiety than those in the neutral condition, $F(1,43) = .12, p = .73, \eta^2 = .00$. Therapists in the ego depletion condition had significantly greater death anxiety than those in the neutral condition, with a medium-large effect size, $F(1,43) = 5.65, p < .05, \eta^2 = .12$.

b. Therapists in the ego depletion condition will show more behavioral countertransference than those in the control condition.

Therapists in the ego depletion condition did not have significantly greater avoidance than those in the neutral condition, $F(1,42) = 2.61, p = .11, \eta^2 = .06$.

c. Therapists in the ego depletion condition will show more cognitive countertransference than those in the control condition.

Therapists in the ego depletion condition did not have significantly greater cognitive countertransference than those in the neutral condition, $F(1,43) = .42, p = .52, \eta^2 = .01$.

4. What is the effect of ego depletion on the relation between countertransference management and countertransference?

The regression tables for the relations between countertransference management and countertransference, as measured by state anxiety, death anxiety, avoidance (behavioral countertransference), and cognitive countertransference are presented in Tables 3, 4, 5, and 6, respectively. None of the relations nor interaction term were significant.

5. *What is the effect of ego depletion on the relation between ego defense maturity and countertransference?*

The regression tables for relation between ego defense maturity and countertransference, as measured by state anxiety, death anxiety, avoidance (behavioral countertransference), and cognitive countertransference are presented in Tables 7, 8, 9, and 10, respectively. Ego depletion was a significant predictor of death anxiety, $F(2, 42) = 4.01, p = .02$; F -Change = 4.30, $p = .04$. However, the interaction between ego defense maturity and ego depletion was not significant, F -Change = .52, $p = .47$. No other relations nor interaction term were significant.

Table 3. Summary Of Hierarchical Regression Analysis of Countertransference Management and Ego Depletion as Predictors of STAI-S

Variable	Step number	<i>R</i>	<i>R</i> ² -Change	<i>F</i>	<i>F</i> -Change
Countertransference					
management	1	.15	.02		
Ego depletion	2	.20	.016	.74	.26
Countertransference management x ego depletion					
	3	.27	.03	.35	.45

Table 4. Summary Of Hierarchical Regression Analysis of Countertransference Management and Ego Depletion as Predictors of DAS

Variable	Step number	<i>R</i>	<i>R</i> ² -Change	<i>F</i>	<i>F</i> -Change
Countertransference					
management	1	.23	.05		
Ego depletion	2	.28	.03	.66	.46
Countertransference management x ego depletion					
	3	.38	.07	.80	1.07

Table 5. Summary Of Hierarchical Regression Analysis of Countertransference Management and Ego Depletion as Predictors of Behavioral Countertransference

Variable	Step number	<i>R</i>	<i>R</i> ² -Change	<i>F</i>	<i>F</i> -Change
Countertransference					
management	1	.01	.00		
Ego depletion	2	.14	.02	.16	.31
Countertransference management x ego					
depletion	3	.23	.03	.26	.46

Table 6. Summary Of Hierarchical Regression Analysis of Countertransference Management and Ego Depletion as Predictors of Cognitive Countertransference

Variable	Step number	<i>R</i>	<i>R</i> ² -Change	<i>F</i>	<i>F</i> -Change
Countertransference					
management	1	.27	.08		
Ego depletion	2	.10	.03	.86	.47
Countertransference management x ego					
depletion	3	.14	.04	.76	.61

Table 7. Summary Of Hierarchical Regression Analysis of Ego Defense Maturity and Ego Depletion as Predictors of STAI-S

Variable	Step number	<i>R</i>	<i>R</i> ² -Change	<i>F</i>	<i>F</i> -Change
Ego defense					
maturity	1	.24	.06		
Ego depletion	2	.24	.00	1.23	.00
Ego defense					
maturity x ego					
depletion	3	.24	.00	.84	.11

Table 8. Summary Of Hierarchical Regression Analysis of Ego Defense Maturity and Ego Depletion as Predictors of DAS

Variable	Step number	<i>R</i>	<i>R</i> ² -Change	<i>F</i>	<i>F</i> -Change
Ego defense					
maturity	1	.28	.08		
Ego depletion	2	.40	.09	4.01*	4.30*
Ego defense					
maturity x ego					
depletion	3	.42	.01	2.88	.52

Note. * $p < .05$

Table 9. Summary Of Hierarchical Regression Analysis of Ego Defense Maturity and Ego Depletion as Predictors of Behavioral Countertransference

Variable	Step number	<i>R</i>	<i>R</i> ² -Change	<i>F</i>	<i>F</i> -Change
Ego defense					
maturity	1	.17	.03		
Ego depletion	2	.28	.05	1.70	2.10
Ego defense					
maturity x ego					
depletion	3	.31	.02	1.46	.97

Table 10. Summary Of Hierarchical Regression Analysis of Ego Defense Maturity and Ego Depletion as Predictors of Cognitive Countertransference

Variable	Step number	<i>R</i>	<i>R</i> ² -Change	<i>F</i>	<i>F</i> -Change
Ego defense					
maturity	1	.10	.01		
Ego depletion	2	.15	.01	.50	.61
Ego defense					
maturity x ego					
depletion	3	.19	.01	.51	.53

Chapter 6: Discussion

Summary of results

Countertransference management was not significantly related to any measures of countertransference. Some of the relations did have small to medium effect sizes: the relation between countertransference management and death anxiety ($r^2 = .05$), and between countertransference management and cognitive countertransference ($r^2 = .07$). This analysis, however, was limited by the sample size. With 18 supervisor-participants, the effect size would have to be large (approximately $r^2 = .25$) for a relation to be significant. The sample size of supervisor-participants will be further discussed under the Limitations section.

Ego defense maturity was not significantly related to countertransference management, but the effect size of the relation was medium ($r^2 = .13$). This result was likely subject to the same limitations of sample size as the above finding regarding countertransference management and countertransference. Given the medium effect size of the relation between ego defense maturity and countertransference management, it is possible that in a larger sample, the relation would be significant. Ego defense maturity and countertransference management likely share some variance, as both reflect aspects of psychological health and anxiety management.

Countertransference affect (measured by state anxiety), behavior, and cognition were not affected by ego depletion. Affective countertransference specific to death anxiety, however, was higher in the ego depletion condition than in the neutral condition. This result could be indicative of countertransference, as death anxiety has been previously suggested to play a role

in countertransference (Lacocoque & Loeb, 1988; Hayes & Gelso, 1993). A death anxiety measure has not heretofore been used as a measure of countertransference as a dependent variable. For example, Hayes and Gelso (1993) gave the Death Anxiety Scale to participants prior to random assignment to conditions. Given the existing countertransference literature on death anxiety (e.g., Lacocoque & Loeb, 1988) and the results of the present study, it seems reasonable to consider death anxiety as a possible measure of content-specific countertransference.

Neither countertransference management nor ego defense maturity contributed additional explanatory power to the relation between ego depletion and countertransference.

There was not an interaction effect between countertransference management and ego depletion. Nor was there an interaction between ego defense maturity and ego depletion. As will be further addressed in the Limitations section, the restricted ranges of scores of countertransference management and ego defense maturity may have resulted in ceiling effects for each. This could have in turn limited the amount of variance in the effects of ego depletion on countertransference that could be explained by ego defense maturity or countertransference management.

Countertransference management and ego defense maturity

The medium effect size of the relation between countertransference management and ego defense maturity suggests that, despite the non-significance, there could be a relation between the two constructs. The factors of countertransference management identified by Gelso and Hayes (2007, ch. 5)- self-insight, self-integration, anxiety management, empathy, and conceptualizing ability- seem to relate theoretically to ego defense maturity. An analysis of the

theoretical relation between the countertransference management factors and ego defense mechanisms may help illustrate a possible connection.

Self-integration largely involves identity stability, successful differentiation between self and others, and overall good psychological health (Gelso & Hayes, 2007). Ego defense maturity in general has been found to correlate with psychological health (Bond, 2004; Kennedy, Schwab, & Hyde, 2001; Vaillant, Bond, & Vaillant, 1986). More specifically, immature defense styles, which are characterized by the use of mechanisms such as denial, projection, and dissociation, predominantly feature distortions around perceptions of reality. Problematic handling of internal impulses and drives would likely result in unstable identity, as fundamental realities of the self are denied. Projection and projective identification in particular also feature denying one's internal distress via distorted perceptions of others, which could affect differentiation between self and others.

Whereas self-integration involves stability and psychological health, self-insight involves the related ability to recognize and understand one's internal states. Such a process would be made difficult by a defense style that involves denying, projecting, or repressing oneself and one's affect. Neurotic defenses such as reaction formation and intellectualization suggest some recognition of internal states, but with behavior that reflects otherwise in the case of reaction formation, or lack of true affective understanding despite cognitive recognition of one's instinctual impulses, in the case of intellectualization (Sammallahti, 1995; Vaillant, 1992).

Given how ego defense mechanisms can influence perception and understanding of oneself and others, conceptualizing ability and empathy could also be affected by ego defense

maturity. An ego defense style characterized by distorted perceptions of self and others would likely interfere with the ability to accurately understand others' reactions, motivations, and interpersonal behaviors. A chronic, fundamental misunderstanding of self and others would likely interfere with a therapist's ability to create a sound model of a client in the therapist's mind. Neurotic defense styles such as intellectualization are characterized by attending to concrete information about self and others while denying or repressing affect. Empathy might indicate an ability to acknowledge and attend to such affect, and therefore preventing conceptualization from becoming intellectualized and defensive (see Gelso & Hayes, 2007, p. 98). In contrast to immature and neurotic defense styles, a mature defense style- which might feature defense mechanisms such as altruism, sublimation, or suppression- could provide vital intrapsychic underpinnings to a therapists' ability to manage countertransference.

The suggestion of ego defense maturity as a foundation from which countertransference management develops or manifests suggests a temporal precedence in which ego defense style develops prior to countertransference management. Although both are described as trait-like (e.g., Gelso & Hayes, 2007; Vaillant, Bond, & Vaillant, 1986), the ego has been typically conceptualized as beginning to develop in early childhood (Pine, 1990; A. Freud, 1966; Fenichel, 1945), whereas countertransference management would theoretically begin to develop when therapists enter training, perhaps based upon a therapists' ego defense maturity at that point. Considering the developmental course of ego over the lifespan, it seems likely that ego defense maturity is a precursor to countertransference management. Possible directions for continued

research on ego defense maturity and countertransference management are presented in the section on Future Research.

Ego depletion and countertransference

The effect of ego depletion on death anxiety replicates previous findings that ego depletion can make one more vulnerable to death anxiety when presented with death-related stimuli (Gailliot, Schmeichel, & Baumeister, 2006). Further implications for ego depletion research relate to the fact that prior research on ego depletion has for the most part involved undergraduate students as participants (e.g., Baumeister, Vohs, & Tice, 2007; Tice, Bratslavsky, & Baumeister, 2001; Muraven & Baumeister, 2000; Baumeister, Bratslavsky, Muraven, & Tice, 1998). In the present study, ego depletion tasks were found to have an effect on a sample that included graduate students, psychology interns, psychiatry residents, and licensed practitioners. Also, the ego depletion tasks affected a group with higher ego defense maturity compared to the normal population, although the effects on countertransference were limited to death anxiety. The effect of ego depletion on death anxiety, but not other types of countertransference, raises questions about resilience factors that might influence the effects of ego depletion, and about how ego depletion might be mitigated. Some resilience factors may prevent depletion from occurring, whereas others may still allow ego depletion to occur but mitigate its effects on other psychological processes. It seems that in the present study, ego depletion occurred but its effects did not generalize beyond death anxiety.

In addition to replicating previous research concerning ego depletion, ego depletion's effect on the therapists' death anxiety may indicate a vulnerability that existed within the

therapist-participants, exacerbated by ego depletion. However, this specific affective experience did not correspond with general state anxiety, cognitive, or behavioral countertransference. It might be that ego depletion only induced countertransference (death anxiety) specific to the content of the client's presenting problem (possible terminal illness diagnosis). As with anxiety in a variety of situations, one might feel anxiety about one issue without necessarily feeling particularly anxious otherwise. In the present study, the therapists seemed to have successfully contained their death anxiety without otherwise experiencing adverse effects.

Perhaps the causes of countertransference might also include factors that influence which type of countertransference occurs, or how much one type of countertransference generalizes to another. Gelso and Hayes (2007) suggest that countertransference is the result of an interaction between a therapist's unresolved internal conflicts, and the affect, thoughts, or behavior of a client. Additional factors that might play a role in this interaction could be vulnerabilities that tend to cause chronic countertransference versus acute countertransference, the degree to which a therapist is triggered, and the degree to which a therapist can successfully manage a given countertransference reaction.

Successful management of countertransference neutralizes harmful responses, but can also contribute to the creation of a helpful, therapeutic response. As Gelso and Hayes (2007) noted, countertransference can be experienced internally by a therapist, and if successfully managed, will not adversely affect the therapeutic work. Beneficial therapeutic work that is caused by countertransference may occur if the countertransference strengthens empathy or

provides insight into the client's world or the therapeutic relationship. This phenomenon of countertransference resulting in helpful, rather than harmful, therapeutic responses may have occurred in the present study. This possible explanation is based on two findings within the results: first, the significant, negative relation between death anxiety and avoidance with a medium effect size; second, the small effect size and directionality of the non-significant difference between the means of the behavioral countertransference measure in the control and experiment conditions. These findings together suggest that higher death anxiety predicted a therapist reaction that included a greater proportion of approach-type responses. Perhaps the increased death anxiety in the experimental condition caused higher insight or empathy regarding the client's death anxiety, and therefore more approach responses in the experimental condition. The client's presentation included expression of thoughts and feelings related to death, but also other concerns such as occupational and relational stressors. The therapists who experienced higher death anxiety may have attended to her death anxiety- a key theme throughout her vignettes- more consistently as it arose, compared to therapists with lower death anxiety.

Therapist resilience

Although ego depletion did occur in the experimental condition, and affected the therapists' death anxiety, the therapists were for the most part resilient to having it negatively affect their interactions with the analogue client. Previous research on ego depletion suggests that many situations in everyday life can induce ego depletion (see Baumeister, Vohs, & Tice, 2007). Perhaps the type of depletion that is similar to that of situations that occur as a matter of routine did not make therapists more vulnerable to acting out their countertransference.

There are several factors that may have contributed to ego depletion not affecting therapists' cognition or behavior. Priming for persistence activation in participants has been found to override the effects of ego depletion (Alberts, Martijn, Greb, Merkelbach, and de Vries, 2010). Primes that focus attention towards oneself (e.g., a word puzzle that involves self-related personal pronouns) can also override depletion effects (Alberts, Martijn, and de Vries, 2010). Self-affirmation, i.e., focusing on personal values important to oneself, has been found to prevent the effects of ego depletion from taking hold (Schmeichel & Vohs, 2009). Finally, positive affect can counteract the effects of ego depletion tasks (Tice, Baumeister, Shmueli, & Muraven, 2007). The aforementioned processes could have occurred as a result of some aspect of helping the analogue client, and therefore interfered with the effect of ego depletion on behavioral and cognitive countertransference. The therapists may have had some vulnerability related to the topic of death, but factors that counteract the effects of ego depletion may have kept the therapists' vulnerability from being acted upon. Although mood was assessed and not found to differ between conditions, persistence activation, self-affirmation, and focus on oneself were not assessed or controlled for.

Limitations

The present study had several limitations that should be taken into account when considering the results and conclusions. First, there were limitations related to the sample characteristics, such as sample size and higher-than-normal ego defense maturity. Second, measure characteristics such as low reliability, skewness, and kurtosis may have affected the

results. Finally, the design of the study presented limitations regarding conclusions about the effects of ego depletion, and the nature of the analogue client scenario limited generalizability.

A larger sample might have changed the significance of the relation between ego defense maturity and countertransference management, considering the effect size of this finding. A larger sample would have also resulted in greater power for the regression analyses of the relation between countertransference management, ego depletion, and countertransference, and of the relation between ego defense maturity, ego depletion, and countertransference. However, the effect sizes in both regressions were not even small, so it seems unlikely that the significance of either regression would have changed with a larger, similar sample. Considering the likely relation between ego defense maturity and countertransference management, if one contributed significant variance to the model of the relation between ego depletion and countertransference, the other would as well. The regression between ego defense maturity, ego depletion, and countertransference- compared with the regression between countertransference management, ego depletion, and countertransference- did not show any indication of results that were approaching significance, despite the larger sample size of the regression that involved ego defense maturity. The supervisor-participant sample in particular was too small to detect medium or small effects in analyses that involved countertransference management. Despite multiple communications through different means (e.g., reminders via supervisees; emails directly to the supervisors), only 19 therapist-participants had supervisors who participated.

Supervisor-participants were recruited both directly by the researcher, and via therapist-participants. Supervisor-participants were asked in person when possible, and otherwise via

email. Therapist-participants also requested that their supervisors participate, and also gave the supervisor's email address to the researcher, who then contacted them directly. If a supervisor did not respond within two weeks, a reminder email was sent to the therapist-participant and the supervisor, and another email two weeks later if necessary. No supervisors verbally declined to participate during the recruitment process; rather, they simply did not respond to requests via their supervisees or to emails sent from the researcher. However, despite the limitations of the sample size- especially that of the supervisor-participants- the sample size of therapist-participants was within the range of sample sizes of previous studies on ego depletion, and previous analogue studies of countertransference (e.g., Converse & DeShon, 2009; Vohs, Baumeister, & Ciarocco, 2005; Gailliot, Schmeichel, & Baumeister, 2006; Bandura, Lipshur, & Miler, 1960; Gelso & Hayes, 1993; Latts & Gelso, 1995; Gelso, Fassinger, Gomez, & Latts, 1995).

A second limitation related to characteristics of the sample was that the sample had moderately high countertransference management and high ego defense maturity. The sample may have been insufficiently vulnerable to countertransference for it to surface cognitively or behaviorally. This may have contributed to why the therapists' experienced higher death anxiety in the ego depletion condition, but did not otherwise show countertransference. In the case of behavioral countertransference, perhaps the sample's moderately high countertransference management brought forth more approach responses than would have been the case in a sample with worse countertransference management.

As noted previously, the sample's relatively high ego defense maturity may have produced a ceiling effect in which there was limited variability in ego defense maturity in the sample. The therapist-participants may have responded in ways that they perceived as socially desirable, which could have resulted in higher ego defense maturity scores. In addition to the limitations related to sample size, the relatively high level of ego defense maturity and lower standard deviation compared to the normal population might have created a ceiling effect that affected relations between between ego defense maturity and countertransference management, or between ego defense maturity and vulnerability to ego depletion and countertransference. It is possible that the relatively high ego defense maturity made the sample as whole less vulnerable to the effects of ego depletion on their cognitions or behavior, and therefore generally able to manage impulses that, in a sample of less well-functioning therapists, would have resulted in more countertransference. Although the final research question addressed the possible interrelations between ego defense maturity, ego depletion, and countertransference, testing this question might have required a greater representation of therapists with less mature ego defense styles than were present in the sample.

In addition to characteristics of the sample that presented limitations, characteristics of some of the measures and their effects on the results should be taken into account. The Defense Style Questionnaire subscales, especially for the image distortion and adaptive styles had low internal reliability, although the Cronbach's alpha for the overall scale was .84. The interrater reliability for approach-avoidance was also low. Low reliability may have increased the likelihood of Type II error. The measure for cognitive countertransference was positively

skewed and leptokurtic, indicating a non-normal distribution that violates one of the assumptions of parametric statistical tests used. However, ANOVA and random assignment to conditions provide some robustness despite non-normal data. Also, the effect sizes involving cognitive countertransference were not even small; non-parametric statistics would be unlikely to yield different results.

One limitation related to the experimental design was that, although the control and experimental conditions resulted in overall differences in ego depletion across conditions, some participants in the neutral condition reported higher task exertion compared to participants in the experimental condition. Task exertion serves as an indication of ego depletion that has been found to relate to behavioral manifestations of ego depletion (Converse & DeShon, 2009; Gailliot, Schmeichel, Baumeister, 2006; Vohs, Baumeister, & Ciarocco, 2005). Ego defense maturity and countertransference management were tested as possible factors related to the effects of ego depletion, but neither provided significant results regarding individual susceptibility to the effects of ego depletion. Factors that might have related to variation in response to the ego depletion tasks include characterological resilience or vulnerability to ego depletion, situational factors, such as ego depletion that may have occurred prior to the start of the experiment (e.g., resisting a temptation), or physiological state (e.g., if a participant had low blood sugar because of hunger). Variables other than countertransference management and ego defense maturity that might have been related to resilience against ego depletion, as noted above in the section on therapist resilience, were not measured. Despite the possible sources of between-subject variability related to ego depletion, the experimental manipulation for ego

depletion was found to be effective overall in causing task exertion in both the pilot and main studies. The random assignment of therapist-participants to control or experimental conditions allowed for testing causal hypotheses related to ego depletion.

Although the ego depletion manipulation was overall effective in changing the level of ego depletion, there are limitations to generalizing the effects to psychotherapists in practice. As Baumeister, et al, (2006) noted, real life situations that cause ego depletion likely have larger effects than do laboratory scenarios. The tasks used in the present study were laboratory analogues of depleting situations that psychotherapists might face. Additional research on different types of ego depletion tasks, including tasks that might be more relevant to therapy, would be useful in improving understanding how ego depletion might affect therapists.

The analogue therapy scenario had several limitations. The use of tele-therapy as context for the scenario helped make the presentation of the client via computer more realistic. However, responding to a scripted client is artificial, regardless of the presentation context. First, a scripted client cannot alter her responses based on what the therapist says, so the scenario is inherently less interactive than a real therapy session. Second, therapists may vary as far as which client presentations trigger unresolved issues and result in countertransference. As noted by Gelso and Hayes (2007), countertransference can be considered the result of an interaction between a client's presentation and a therapist's vulnerabilities. A scripted client cannot be both consistent across participants while simultaneously customized to target the unique vulnerabilities of each participant. Strengths of how the client scenario was implemented were that the actresses were piloted prior to the main study, and that one actress with insufficient

believability was replaced with another who had an acceptable level of believability. Overall, as an analogue experiment, the study had strong internal validity for testing causality, but limited generalizability given the scripted client scenario and sample characteristics.

Implications

Regarding ego defense maturity and countertransference management, the present findings suggest some possibilities for therapists and supervisors to consider. Gelso and Hayes (2007) review the severe consequences of poor countertransference management: chronic countertransference problems increase the risk of boundary violations, unethical behavior, and bad decisions regarding therapeutic interventions. As Gelso and Hayes note, therapists-in-training with troublesome chronic countertransference present problems for supervisors and training programs. Questions arise about what kinds of interventions- such as psychotherapy- might help such a trainee, while keeping in mind the training program's obligations to reduce the risk of harm to future clients and to the profession in general.

If ego defense maturity does provide some kind of foundation for countertransference management, then psychotherapy could be a viable option for therapists with chronic, severe countertransference problems. Kramer, de Roten, Michel, and Despland (2009), and Bond and Perry (2004), studied improvement in ego defense functioning over the course of psychotherapy. However, the length of time needed to improve one's ego defense maturity through psychotherapy is unlikely to work well with the requirements of a training program. Bond and Perry (2004) found evidence for improved ego defense maturity over the course psychotherapy that continued for two years. In contrast, Kramer, de Roten, Michel, and Despland's (2009)

study of change in coping and ego defense styles in short-term dynamic therapy (up to 20 sessions) found improvement in coping but not ego defense maturity.

If long-term therapy is necessary for addressing ego defense maturity, this may be unrealistic for many trainees and training programs. Also, improvement in ego defense maturity does not necessarily mean one has a mature style. Decreasing immature ego defense mechanisms while increasing neurotic defenses is considered improvement- a laudable outcome for patient populations, but perhaps insufficient for the level of ego defense maturity needed for acceptable countertransference management. The possibility of change through psychotherapy for trainees faced with countertransference management problems is worth consideration. However, much more research in this area is needed for the development of specific practice recommendations or training guidelines.

Regarding the effects of ego depletion on countertransference, the discrepancy found between affective countertransference as measured by death anxiety and affective countertransference as measured by state-anxiety, as well as behavioral and cognitive countertransference, suggest the possibility and importance of managing internal reactions to prevent generalization or counter-therapeutic behavior. Overall, it is reassuring from a client care perspective that therapists may not be especially vulnerable to letting ego depletion decrease the quality of their therapeutic work, even if ego depletion does result in content-specific affective countertransference. Previous research on ego depletion suggests that many situations in everyday life can induce ego depletion (see Baumeister, Vohs, & Tice, 2007), so it is for the

best if depleting situations that occur as a matter of routine do not make therapists more vulnerable to acting out their countertransference.

Finally, despite the possibility that death anxiety may have contributed to therapists' approach responses, the results of the present study do not support the purposeful use of ego depletion to induce content-specific countertransference as a way of improving the therapeutic process via countertransference management. Future research concerning ego, countertransference management, and countertransference is warranted, as described in the following section.

Future research

Further study of therapists' countertransference management and ego defense maturity could contribute empirical clarification to ego defense theory. Namely, the distinction between neurotic defenses such as reaction formation, and mature defenses such as sublimation can seem theoretically meaningful but difficult to observe. However, by studying countertransference management, countertransference, and ego defense maturity, knowledge could be gained about observable affect, behavior, and cognition that may accompany the underlying processes suggested in ego defense theory and countertransference management. For example, one could imagine observable differences in countertransference management and countertransference between a therapist whose defense style features neurotic defenses such as reaction formation, displacement, and intellectualization versus a therapist whose defense style features mature sublimation, humor, and altruism. For example, in the case of the neurotic therapist, one might

observe wordy interpretations that come from an intellectualized approach to therapy, whereas the mature therapist's interventions might show more empathy and genuineness.

It would further be worthwhile to investigate the relation between the different aspects of countertransference, and the process through which internal countertransference is managed. On the present study, ego depletion caused an increase in death anxiety, but the therapists did not act out in a negative way or show their reactions cognitively. Given that countertransference may or may not surface, or may surface in ways that are beneficial, a better understanding of the variability of outcomes after countertransference occurs internally could be used to improve countertransference management and therefore therapy outcomes (see Hayes, Gelso, & Hummel, 2011).

One possible direction for this type of countertransference research could be developing and testing a sequential model of the interactions between countertransference management and the different types of countertransference (affective, behavioral, cognitive). For example, first, an interaction between client and therapist might cause a content-specific response within a therapist, e.g., death anxiety. The therapist might then try to manage this countertransference response by containing it. If unsuccessful, the content-specific anxiety might generalize to cause an overall anxious state. If this anxious state goes unmanaged, the reaction might generalize to cognition, and then to behavior. An alternate model might begin with a cognitive reaction that causes affect and then behavior.

Depending on which model is supported, or what conditions influence the progression of the model, countertransference management strategies could be developed which take into

account the course of a countertransference response. Therapists might be advised to try a cognitive strategy, such as case conceptualization, or an affective one, such as empathy, depending on how a countertransference response is being experienced. Perhaps countertransference management strategies should match the type of countertransference, such as an affective strategy for affective countertransference, or perhaps the strategies should differ, e.g., a cognitive strategy for an affective response. Or, it is possible that the most effective countertransference management strategies are similar to cognitive-behavior therapy models such as Mind Over Mood (Greenberger & Padesky, 1995), in which cognition is generally addressed first.

Although ego depletion and cognitive and behavioral countertransference did not seem to relate, ego depletion could play a role in other therapeutic processes. Given the role that the ego plays in decision-making (see Vohs et al., 2008; Baumeister, 2002), ego depletion could be a factor that impacts clinical decisions, such as diagnosis, mandated reporting, disability evaluations, ethical dilemmas, and referrals (e.g., Shapiro & Ginzberg, 2003). Regarding ego depletion in general, continued study on ego depletion and resilience factors could be helpful to better understand how people might avoid, prevent, or lessen the potential negative consequences of ego depletion (e.g., Alberts, Martijn, Greb, Merkelbach, and de Vries, 2010; Alberts, Martijn, and de Vries, 2010; Schmeichel & Vohs, 2009; Tice, Baumeister, Shmueli, & Muraven, 2007).

Conclusion

Although the relation between countertransference management and ego defense maturity was not significant, the medium effect size, along with the considerable theoretical connection,

suggests the likelihood of a relation. Given that countertransference management as conceptualized by Gelso and Hayes (2007)- and as assessed in the CFI-D- includes components that reflect psychological health (e.g., self-integration, anxiety management), it would be unsurprising if ego defense maturity were in fact related to countertransference management.

Overall, therapists were resilient to the effects of ego depletion as far as cognitive and behavioral countertransference were concerned, regardless of countertransference management and ego defense maturity. Affective countertransference operationalized as state-anxiety did not change due to ego depletion, but affective countertransference operationalized as death anxiety did. The therapist-participants in the experimental condition may have managed the increase in death anxiety by using it to gain insight about or become more empathic towards the client. Further research about the relation between countertransference experienced internally and outward countertransferential behavior could have meaningful implications for countertransference management strategies and therapy outcomes.

Appendix A: Countertransference Factors Inventory

THERAPIST REACTIONS

The therapist:	Strongly		Not		Strongly
	Agree		Sure		Disagree
1. usually restrains him/herself from excessively identifying with the client's conflicts.	1	2	3	4	5
2. is often aware of feelings in him/her elicited by clients.	1	2	3	4	5
3. is usually emotionally "in tune" with clients.	1	2	3	4	5
4. at the appropriate times, stands back from a client's emotional experience and tries to understand what is going on with the client.	1	2	3	4	5
5. effectively sorts out how his/her feelings relate to client's feelings.	1	2	3	4	5
6. often sees things from the client's point of view.	1	2	3	4	5
7. is usually able to conceptualize client dynamics or issues clearly.	1	2	3	4	5
8. effectively distinguishes between client's needs and his/her own needs.	1	2	3	4	5
9. is often aware of fantasies in him/her triggered by client material of affect.	1	2	3	4	5
10. usually comprehends how his/her feelings influence him/her in therapy.	1	2	3	4	5

THERAPIST REACTIONS

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- | | | | | | |
|---|---|---|---|---|---|
| 11. can usually identify dynamics of the counseling relationship. | 1 | 2 | 3 | 4 | 5 |
| 12. recognizes the limits of his/her clinical competencies. | 1 | 2 | 3 | 4 | 5 |
| 13. feels confident working with most clients. | 1 | 2 | 3 | 4 | 5 |
| 14. can usually identify with the client's inner experience. | 1 | 2 | 3 | 4 | 5 |
| 15. gets beyond the manifest content to the latent meanings of a client's verbalizations. | 1 | 2 | 3 | 4 | 5 |
| 16. often uses his/her past experiences to aid in understanding the client. | 1 | 2 | 3 | 4 | 5 |
| 17. is willing to consider him/herself as an impediment to client progress. | 1 | 2 | 3 | 4 | 5 |
| 18. does not become overly anxious in the presence of most client problems. | 1 | 2 | 3 | 4 | 5 |
| 19. is perceptive in his/her understanding of clients. | 1 | 2 | 3 | 4 | 5 |
| 20. usually connects strands of the client's material. | 1 | 2 | 3 | 4 | 5 |
| 21. often conceptualizes his/her role in what transpires in the counseling relationship. | 1 | 2 | 3 | 4 | 5 |

Appendix B: Defense Style Questionnaire

DSQ (with indication of items' relations with specific defense mechanisms)

Pseudo-Altruism 1. I get satisfaction from helping others and if this were taken away from me I would get depressed.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Passive-Aggressive 2. People often call me a sulker.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Suppression 3. I'm able to keep a problem out of my mind until I have time to deal with it.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Projection 4. I'm always treated unfairly.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Sublimation 5. I work out my anxiety through doing something constructive and creative like painting or woodwork.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Lie 6. Once in a while I put off until tomorrow what I ought to do today.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Acting-Out 7. I keep getting into the same type of frustrating situations and I don't know why

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Humour 8. I'm able to laugh at myself pretty easily.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Regression 9. I act like a child when I'm frustrated.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Inhibition 10. I'm very shy about standing up for my rights with people.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Omnipotence 11. I am superior to most people I know.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Projection 12. People tend to mistreat me.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Reaction-Formation 13. If someone mugged me and stole my money, I'd rather he'd be helped than punished.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Lie 14. Once in a while I think of things too bad to talk about.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Lie 15. Once in a while I laugh at a dirty joke.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Denial 16. People say I'm like an ostrich with my head buried in the sand. In other words, I tend to ignore unpleasant facts as if they didn't exist.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Inhibition 17. I stop myself from going all out in a competition.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Omnipotence/
Devaluation 18. I often feel superior to people I'm with.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Projective
Identification 19. Someone is robbing me emotionally of all I've got.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Lie 20. I get angry some times.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Acting-Out 21. I often am driven to act impulsively.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Passive-Aggressive 22. I'd rather starve than be forced to eat.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Omnipotence 23. I ignore danger as if I were Superman.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Omnipotence/
Devaluation 24. I pride myself on my ability to cut people down to size.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Projection 25. People tell me I have a persecution complex.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Lie 26. Sometimes when I am not feeling well I am cross.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Acting-Out 27. I often act impulsively when something is bothering me.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Somatization 28. I get physically ill when things aren't going well for me.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Inhibition 29. I'm a very inhibited person.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Omnipotence/
Devaluation 30. I'm a real put-down artist.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Lie 31. I do not always tell the truth.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Withdrawal 32. I withdraw from people when I feel hurt.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Acting-out 33. I often push myself so far that other people have to set limits for me.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Humour 34. My friends see me as a clown.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Withdrawal 35. I withdraw when I'm angry.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Projection 36. I tend to be on my guard with people who turn out to be more friendly than I would have suspected.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Omnipotence 37. I've got special talents that allow me to go through life with no problems.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Lie 38. Sometimes at elections I vote for someone about whom I know very little.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Passive Aggressive 39. I'm often late for appointments.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Fantasy 40. I work more things out in my daydreams than in my real life.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Inhibition 41. I'm very shy about approaching people.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Denial 42. I fear nothing.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Splitting 43. Sometimes I think I'm an angel and other times I think I'm a devil.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Lie 44. I would rather win than lose in a game.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Passive-Aggressive 45. I get very sarcastic when I'm angry.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Acting-Out 46. I get openly aggressive when I feel hurt.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Reaction Formation 47. I believe in turning the other cheek when someone hurts me.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Lie 48. I do not read every editorial in the newspaper every day.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Withdrawal 49. I withdraw when I'm sad.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Inhibition 50. I'm shy about sex.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Primitive 51. I always feel that someone I know is like a guardian angel.

Idealization

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Denial 52. My philosophy is, "Hear no evil, do no evil, see no evil"

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Splitting 53. As far as I'm concerned, people are either good or bad.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Passive Aggressive 54. If my boss bugged me, I might make a mistake in my work or work more slowly so as to get back at him.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Projection 55. Everyone is against me.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Reaction Formation 56. I try to be nice to people I don't like.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Denial (lie) 57. I would be very nervous is an airplane in which I was flying lost an engine.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Primitive 58. There is someone I know who can do anything and who is absolutely
Idealization fair and just.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Suppression 59. I can keep the lid on my feelings if it would interfere with what I'm doing if I were to let them out.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Projection 60. Some people are plotting to kill me.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Humour 61. I'm usually able to see the funny side of an otherwise painful predicament.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Somatization 62. I get a headache when I have to do something I don't like.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Reaction-Formation 63. I often find myself being very nice to people who by all rights I should be angry at.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Splitting 64. There's no such thing as "finding" a little good in everyone". If you're bad, you're all bad.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Reaction Formation 65. We should never get angry at people we don't like.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Projection 66. I am sure I get a raw deal from life.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Regression 67. I fall apart under stress.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Anticipation 68. When I know that I will have to face a difficult situation, like an exam or a job interview, I try to imagine what it will be like and plan ways to cope with it.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Help-rejecting/
complaining 69. Doctors never really understand what is wrong with me.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Isolation 70. When someone close to me dies, I don't feel upset.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Undoing 71. After I fight for my rights, I tend to apologize for my assertiveness.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Projection 72. Most of what happens to me is not my responsibility.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Consumption 73. When I'm depressed or anxious, eating makes me feel better.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Task Orientation 74. Hard work makes me feel better

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Help-Rejecting/ 75. My doctors are not able to help me really get over my problems.

Complaining

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Isolation 76. I'm often told that I don't show my feelings.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Isolation 77. I believe that people usually see more meaning in films, plays or books than is actually there.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Undoing 78. I have habits or rituals which I feel compelled to do or else something terrible will happen.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Consumption 79. I take drugs, medicine or alcohol when I'm tense.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Affiliation 80. When I feel bad, I try to be with someone.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Anticipation 81. If I can predict that I'm going to be sad ahead of time, I can cope better.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Help-rejecting/
Complaining 82. No matter how much I complain, I never get a satisfactory response.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Isolation 83. Often I find that I don't feel anything when the situation would seem to warrant strong emotions.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Task Orientation 84. Sticking to the task at hand keeps me from feeling depressed or anxious.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Consumption 85. I smoke when I'm nervous.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Affiliation 86. If I were in a crisis, I would seek out another person who had the same problem.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Projection 87. I cannot be blamed for what I do wrong.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Undoing 88. If I have an aggressive thought, I feel the need to do something to compensate for it.

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

Appendix C: Intercorrelations between overall defense maturity and ego defense style categories

Table 11. Intercorrelations between overall defense maturity and ego defense style categories.

	Maladaptive action	Image-distorting	Self-sacrificing	Adaptive
Image-distorting	.37* (.39)	-	-	-
Self-sacrificing	.41** (.37)	.01 (.18)	-	-
Adaptive	-.39** (-.28)	-.06 (.07)	-.01 (-.02)	-
Overall defense maturity	-.82***	-.67***	-.16	.65***

Note. The correlations in parentheses are from Bond and Wesley (1996). * $p < .05$; ** $p < .01$;

*** $p < .001$

Appendix D: Death Anxiety Scale

INSTRUCTIONS: Please answer the following questions. If a statement is true or mostly true as applied to you, circle "True". If a statement is false or mostly false as applied to you, circle "False."

I am very much afraid to die.

True False

The thought of death never bothers me.

True False

The thought of death seldom enters my mind.

True False

I am often distressed by the way time flies so very rapidly.

It doesn't make me nervous when people talk about death.

True False

True False

I fear of dying a painful death.

True False

I dread to think about having to have an operation.

True False

The subject of life after death troubles me greatly.

True False

I am not at all afraid to die.

True False

I am really scared of having a heart attack.

True False

I am not particularly afraid of getting cancer.

True False

I often think about how short life really is.

True False

I shudder when I hear people talking about

World War III.

True False

The sight of a dead body is horrifying to me.

True False

I feel the future holds nothing for me to fear.

True False

Appendix E: Ego depletion manipulation check

T.E.

	Strongly disagree	Agree	Neither agree nor disagree	Agree	Strongly agree
I exerted a lot of effort while watching the client's introduction.	1	2	3	4	5
I felt frustrated while watching the client's introduction.	1	2	3	4	5
I had to exert self-control while watching the client's introduction.	1	2	3	4	5
I exerted a lot of effort when I wrote down my thoughts.	1	2	3	4	5
I felt frustrated when I wrote down my thoughts.	1	2	3	4	5
I had to exert self-control when I wrote down my thoughts.	1	2	3	4	5

Appendix F: Brief Mood Introspection Scale

BMIS

Please circle the response that best reflects how the words below describe you at this moment.							
	Definitely do not feel		Do not feel		Slightly feel		Definitely feel
Lively	1	2	3	4	5	6	7
Peppy	1	2	3	4	5	6	7
Active	1	2	3	4	5	6	7
Happy	1	2	3	4	5	6	7
Loving	1	2	3	4	5	6	7
Caring	1	2	3	4	5	6	7
Drowsy	1	2	3	4	5	6	7
Tired	1	2	3	4	5	6	7
Nervous	1	2	3	4	5	6	7
Calm	1	2	3	4	5	6	7
Gloomy	1	2	3	4	5	6	7
Fed up	1	2	3	4	5	6	7
Sad	1	2	3	4	5	6	7
Jittery	1	2	3	4	5	6	7
Grouchy	1	2	3	4	5	6	7
Content	1	2	3	4	5	6	7

Appendix G: State-Trait Anxiety Inventory-State

STAI-S

A number of statements which people have used to describe themselves are given below.

Read each statement and then select the appropriate one to indicate how you feel right now, that is, at this moment. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe your present feelings best.

	Not at all	Somewhat	Moderately So	Very Much So
I feel calm	1	2	3	4
I feel secure	1	2	3	4
I am tense	1	2	3	4
I am regretful	1	2	3	4
I feel at ease	1	2	3	4
I feel upset	1	2	3	4
I am presently worrying over possible misfortunes	1	2	3	4
I feel rested	1	2	3	4
I feel anxious	1	2	3	4
I feel comfortable	1	2	3	4
I feel self-confident	1	2	3	4
I feel nervous	1	2	3	4
I am jittery	1	2	3	4
I feel "high strung"	1	2	3	4

I am relaxed	1	2	3	4
I feel content	1	2	3	4
I am worried	1	2	3	4
I feel overexcited and rattled	1	2	3	4
I feel joyful	1	2	3	4
I feel pleasant	1	2	3	4

Appendix H: Demographics questionnaire

Appendix I: Client scenario

Session 1: Intake note

Claire is a 28 year-old white female who has presented with concerns regarding procrastination and anxiety. She has a bachelor's degree in English and has since worked at non-profit writing grants. She reported that she procrastinates because “all of my ideas come at the last minute; I just get writer's block before then.” However, this leaves her with little time to accomplish her tasks. Claire also reported that she comes home stressed from work, and worries that this hurts her relationship with her boyfriend, who lives with her. Claire stated that her stress has worsened recently. She said that she can't get started on new projects because she is too anxious.

Claire was raised by her mother and father, and is the youngest of 3 siblings: she has an older brother and older sister. She described her life growing up as “comfortable- middle class.” She remembers her parents saying "why do you always wait til the last minute to do everything?" ever since she was a kid. Claire stated that she has not been abused, and does not have a history of self-harm, suicide attempts, or ideation. Claire reports drinking 2 or fewer alcoholic drinks per week, with dinner or on social occasions.

Claire reported that she does not have a history of physical illness. She has an upcoming medical appointment for a routine check up. Claire stated that she has been putting off her physical exam, but wants to ask her doctor about anti-anxiety medication, so she made an appointment. She stated that she “figured [she] should attend therapy,” if she is looking at starting anti-anxiety medication.

Claire's goal for treatment is that she wants “to stop being a procrastinator.”

Session 2: Progress note

Presenting problem

Claire reported trying to set aside time to get her work done ahead of time, but then got writer's block when she sat down to work. Then she got distracted by other tasks, so by the time she got back to the project the deadline was close. She stayed late to work on it and missed a dinner with her boyfriend that they had planned, and her boyfriend was upset about it.

Session summary

We discussed how Claire budgets her time, and her tendency to expect that she'll get more done than is really possible. Claire reported that her perfectionism leads to her avoiding work because she can't get it "just right." She expressed concern about managing her schedule this week, especially her upcoming doctor's appointment that she needs to take off work for. We discussed how her procrastination and anxiety affect her relationships. We also discussed what it's like to have writer's block and what it means for her when it happens.

Treatment plan

Claire plans to consult with doctor about anti-anxiety medication.

Continue to work on procrastination.

Session 3: Script

First part of session 3: client monologue

“Hey, how’s it going? I can’t believe this weather we’ve been having here, it’s been rainy all week, and I’m getting pretty tired of it. But sometimes I like the rain because it matches my mood. I guess I’ve been feeling pretty down this week. There’s been a lot going on.

“You know that doctor's visit I had, it turned into a big hassle. [sigh] Just getting to the appointment was a pain because I had to take off work, and I already feel like I’m behind as always, but then it turned into ... I don’t know, I don’t know how to talk about it, it’s overwhelming, it’s just too much, so what happened was, I don’t remember how much I told you, but I had to go to a physical exam that I’ve putting off, and plus that’s when I wanted to ask about getting anti-anxiety medicine.

“During the physical, my doctor was using the stethoscope to check my breathing, but then when he put it on my back, he noticed a bump. So, he looked at it, and he wasn't sure if it was anything, but referred me to a specialist just to be sure. I went to the specialist, and she took a closer look, and decided I needed a biopsy, but with my schedule and the doctor's schedule, we had to make an appointment for the next week, but then the afternoon after I left my appointment, the receptionist called and said there was a cancelation so I could go in the next day. I just wanted to get it over with, so I went, but it lasted longer than I expected and it messed up that project I was talking to you about last week, but anyway so I went and now I'm waiting for the results. They think it could be nodular melanoma, and normally melanoma's not a big deal, well it is a big deal because it's cancer, but it's usually treatable. But nodular melanoma, it

seems like by the time you know you have it, it can already be invasive. So they're trying to figure out if it's metastasized [stumble over word a little] or how invasive it is. It might be just localized, and then I'd have to have surgery and radiation or chemo or something like that, but if it's invasive then there aren't any treatment options, because I looked online and WebMD, Mayo Clinic, and Wikipedia all said that, but then I Googled it and there might some experimental treatments or alternative treatments.

“I just don’t know. I’m trying not to worry about it or expect the worst, and plus I need to get all this work done. With all my appointments, I missed work, and I’m really behind and I don’t know if I can get everything done at the last minute like I usually do. This whole procrastination thing is really messing me up. My co-workers make little comments, like “saving it til the last minute again?” But they don’t get that I have so much to do, and they all leave early, or at least before I do, but I stay to get my work done, and I really care about getting it just right. My other co-workers aren’t as careful as I am. So, my boss gives me more than what they get, and they don’t understand that.

“And my boyfriend and I have been arguing more this week and I don’t know why. I’m just really stressed about work, and I told him that I have a lot of work to do, and he doesn’t understand, and he won’t leave me alone. You know, he just doesn’t “get” me. He keeps calling at work in the afternoon to find out when I’m coming home. But I don’t know really know, so then he calls again later to find out, and then I get annoyed because I feel like he doesn’t understand how unpredictable my job is.”

Second part of session 3: Therapist response section

[Written instructions to participants:

Please respond to Claire the way you would if she was one of your own clients, using the same timing and tone of voice as you would in an in-person session.]

The other day, and my boyfriend called me early in the afternoon at work to see when I was coming home, and I didn't know but I would call him when I found out. And then he called me again, and I just got annoyed. I don't know but I got so mad when he called the second time.

And my boyfriend keeps asking me how I'm doing, and I kept saying fine or just stressed from work, but he kept asking, and finally I blew up at him, and he got upset because he said he worried about me, but I felt like he wasn't listening to me or respecting me, so I just stopped talking to him and I went out for a run. I know he tried to say something to me on my way out, but I didn't want to hear it, so I just walked out without saying anything.

When the doctor's office I was referred to called to see if I could come in earlier, I had already changed my schedule for the initial appointment time and then they wanted to see me earlier. I just felt aggravated. And I don't know when I'm supposed to hear from them about the test results. That's just so typical of you guys, you know? I mean, who the hell do you think you are? You don't give a shit, and I mean all of you [gesture at therapist], if I really needed something, even small just money for the bus, would you give it to me?

I came here for help, and I'm actually worse now than I was before. I'm a mess. This isn't working, you aren't helping me. I can't handle this right now, it's not worth it to put up with this. I'm done talking, I just want to do something. What would you do if I just turned off this camera? I could turn this off right now, and you couldn't do anything about it.

And you know, this part sounds silly, but this has just killed my week. It's bad enough to be worried about the test results, but I fell behind at work because the specialist appointment caused me to miss a deadline. I feel like I've just been running around to doctors offices and making calls and scheduling appointments. And now my job is shaky too on top of that.

Yeah but you know what I keep thinking about is guilt about putting off my doctor's visit. If I went when I was supposed to, it would have been caught early enough [starts crying]. How could I let this happen? I just kept putting it off and putting it off, and now look at what happens. You know part of me wishes I just hadn't gone. I just wanted to get something for my anxiety and get out of there, and it turned into a disaster. So much for a routine checkup.

And I don't understand how I got this- I could die from it. My doctor says that it's something that could happen to anyone, no matter what you do. But that feels so random. Is it some kind of karma? How do some people just get this but most people don't? Anyone could get this—you could get this! And why is it so different from regular melanoma? It's invasive by time you have it, and most likely fatal even after treatment. I thought if you catch these kinds of things early before it gets bad, how could it already be invasive? I didn't even know about it. I saw on TV

someone had a melanoma under her fingernails and didn't know about it. [looks under fingernails] I mean look at yours, you would never think to look there for cancer right?

I've been looking up a lot about it online, and I was reading about cancer treatments, and I'm worried about the side effects of radiation and chemo. I mean the stuff like hair falling out I know about, and I'm not happy about that, but I heard people just feel sick all the time, and you lose your appetite, and I don't want to go through all that, especially if I'm just going to die at the end anyhow.

I know there are treatments for a lot of the side effects, but when I was looking I saw these things that happen... down there [gestures & looks uncomfortable]. I mean sexually, there are usually side effects for not just sex drive, but that it can be painful. I just feel like that this will make things even worse with my boyfriend, he's kind of guy who is completely understanding, but I feel like this will put more strain on us. Plus sex is really important to me, and giving up sex would be like giving up food.

I looked at the Mayo Clinic site, and it said there will be vaginal dryness, lack of sex drive, the lining of the vagina, difficulty "getting there," you know, orgasms. So I know he'll know it's not my fault, but what are we supposed to do in the meantime? I read this advice that said there are lots of ways to show love. But I'm not sure about anal sex, I think that would hurt too, and is it really a substitute? I mean, I'm not against it, but we have tried it, and it was just ... really awkward.

I've started reading about how to deal with terminal illness, and at first I thought it was stupid, but they actually had some good ideas. They said you should plan for how you want your life and death to go- if you want to be at home or at the hospital, and if you want your family there or just one person. I decided that what I want is to not tell anyone and leave a letter about how I'm sick and that I didn't want to be a burden on anyone, and that I wanted to live my life normally. And then everyone who treated me badly will be sorry.

But I feel like I'm not ready to die. I'm pretty young and I'm scared to die. I think it will hurt and I'll be in pain and all alone. Who would want to be in the room with me as I'm dying? I don't think I could take it. I don't want to be tied to tubes and IVs and then what happens? Will I feel it when I die? What happens afterwards?

Appendix J: Paragraph task

Paragraph task

Ayurveda conceptualizes people as being made of five elements: water, wood, fire, earth, and metal/air. The terminology is originally Sanskrit, but there have been translations made to English. An introductory session to ayurveda may start with a mantram, which is a Sanskrit chant. After the mantram, the instructor might explain what ayurveda is especially effective for. For example, to address imbalance in the water/peace element, one would have to first master the social discipline of non-violence, then the personal discipline of contentment, then a forward bend sitting posture (what most Americans consider a yoga posture), and then a breathing/energy state known as samana. Some people may use ayurveda instead of Western medicine, while others may integrate ayurveda into a Western approach to healthcare. It is important to note that people who are learning ayurveda should not stop taking prescription medicine without their doctor's and herbalist's knowledge.

Appendix K: Coding Training and Procedure

Script for Behavioral Response Coding Training Session

We are essentially interested in splitting up the responses into either approach or avoidance. Look at your Response Mode Categories sheet. As you can see, categories 1-4 are approach, and categories 5-10 are avoidance. Research has shown that when therapists avoid client material, it is indicative of counter-transference issues going on with the therapists. Let's read over the different categories that we're talking about to get more familiar with them. (Read through each category.)

When we talk about approach responses, we are looking for responses that are mostly accurate. These responses should be appropriate from a particular theory (e.g., behavioral, humanistic, psychodynamic). Please try to partial out your own theoretical bias since the response will be coming from a wide range of backgrounds, programs, and theories.

Before you begin rating units within each turn, make sure to read the entire turn. For instance, if there are 5 units within the first speaking turn (T1), make sure to read all 5 units before beginning to rate the first one. The idea is to listen to the music rather than the individual notes. Also, most ambiguous responses are much easier to code in the context of the entire unit.

Please do not spend time debating between categories within approach or avoidance.

In other words, if you are torn between choosing one of two approach responses for an individual unit, just choose one without much debate. It is very tempting to think too much about this! However, the distinction between the two general categories of approach vs. avoidance is all that matters in the end.

We're going to read over the background information about the client given to the therapist prior to seeing the client so you know what the therapists already knew about the client and her life. (Read background information.) In addition to this background information, therapists were also asked to assume they had already had four previous sessions with the client. Thus, therapists may make explicit reference to or suggestions based on the background information or the four assumed previous sessions. If there is evidence that the reference or suggestion is related to the assumed previous sessions or background information, it would probably be coded as 2 (exploration). If a suggestion or reference seems to come out of left field and doesn't seem to fit with the flow of material, however it might be coded as 5 (disapproval) or 7 (ignoring).

Make sure to read the client's speaking turn that corresponds to the therapist's speaking turn prior to coding. For example, the client's first speaking turn contains a lot of sadness, frustration, and self-deprecation. If the therapist doesn't acknowledge this frustration in some way during her speaking turn, at least one therapist response would be coded as a 7 (ignoring) since they are ignoring affect. Additionally, the degree of the reflection of feeling is important.

It's important to note that 5 (disapproval) can be very subtle. Wording/phrasing of the therapist's response can make the difference between an approach response vs. this avoidance response.

Finally, it's important to note that the analogue situation was artificial and the therapists may have been nervous about being audio-taped, so remember that bad responses don't necessarily equal avoidance or counter-transference. The responses

might not be great, but are not necessarily avoidant. Approach doesn't have to mean good – just somewhat accurate.

Coding Procedure

Getting the recording

Recordings will be uploaded to Dropbox

The Dropbox account can be accessed at www.dropbox.com/home, or directly through the Dropbox program, if you choose to install it

The login is counselingpsycstudy@gmail.com and the password is terrapin12

The recordings will be stored in a folder called Recordings

Filename: TH##AudioMMDDYY

RAs will take turns transcribing recordings:

RA 1: TH01, TH04, TH07, TH10 and so on

RA 2: TH02, TH05, TH08, TH11 and so on

RA 3: TH03, TH06, TH09, TH12 and so on

Transcribing

Label the transcript file TH##TranscriptMMDDYY

File format

single space

extra line break between speaking turns

Transcribe therapist responses

The first speaking turn is T1, the second speaking turn is T2 and so on

Write word-for-word what the therapist says

leave out fillers such as um, uh, like, mm-hmm, or you know.

make a note in brackets of silences that last longer than 10 seconds; write the duration of silences that are 10 seconds or longer

e.g., You're pretty stressed right now./(1) [silence 23 seconds] It's hard to know what to do./(2)

Unitizing

Put slashes (/) after each “unit” of meaning, or each complete thought. Type the unit # in parentheses after the slash.

e.g., You were in shock,/(1) and you didn't know what to do./(2)

A complete thought has a subject and a verb and can stand on its own.

For example, “He’s going to the store” is a unit because it has a subject (he), a verb (is going), and can stand on its own. In contrast “that he’s going to the store” is NOT a unit because although it has a subject and a verb, it can’t stand on its own as a complete thought..

If the person says 4 different thoughts in one speaking turn, there would be 4 units.

A unit is an independent clause.

An independent clause contains a subject, a verb, and is a complete thought.

ex: You feel tired./

A dependent clause contains a subject and a verb, but is not a complete thought.

dependent clauses start with subordinating conjunctions (e.g., while, when, because, although) or relative pronouns (who, whose, which, that)

ex: when you feel tired

A simple sentence has one independent clause, and therefore 1 unit.

You waited at the doctor's office./

the subject is you, the verb is waited, and at the doctor's office is a prepositional phrase

Simple sentences can still be long and complicated, even with just one clause.

You and your boyfriend need to sit down and talk about this with each other./

Compound subject: You and your boyfriend

Compound verb: sit down and talk

prepositional phrases: about this; with each other

A compound sentence has two independent clauses (and therefore two units: one unit per independent clause).

You're upset with your boyfriend,/ but you haven't told him why./

You want your test results,/ and you're tired of waiting./

He says one thing;/ she says something else./

A complex sentence has one (or more) dependent clause(s) (headed by a subordinating conjunction or a relative pronoun) joined to an independent clause. It has one unit per independent clause.

a dependent clause is not a complete thought, and therefore is not a unit.

When you feel stressed, you have trouble getting your work done./

dependent clause: When you feel stressed,

independent clause: you have trouble getting your work done./

When you work late while your co-workers go home, you get upset./

two dependent clauses: When you work late while your co-workers go home

One independent clause: you get upset./

A compound-complex sentence has two (or more) independent clauses joined to one or more dependent clauses. There is one unit per independent clause.

a dependent clause is not a complete thought, and therefore is not a unit.

You have some pretty big health worries that are bothering you,/ but you want to focus on your procrastination./

independent clauses: You have some pretty big health worries/ and you want to focus on your procrastination./

dependent clause: that are bothering you

for more info on independent vs dependent clauses, refer to

www.towson.edu/sentences.htm

Upload unitized transcript to Dropbox into the folder called "Transcripts."

Coding

Data management

All coding RAs will code all transcripts

From DropBox, download the Coding results spreadsheet from the Coding folder.

The file will be called CodingYournameDDMMYY.xlsx; make sure to download the most recent file.

You will enter all of your coding data into this spreadsheet and then upload it back to DropBox.

Download and code any transcript that you have not yet coded from the Transcripts folder in DropBox.

Each time you finish coding a transcript, please update the date in the filename using the format DDMMYY, and upload your spreadsheet to the DropBox Coding folder.

Coding goals

We are ultimately interested in splitting up the responses into either approach or avoidance. Look at your Response Mode Categories sheet. Categories 1- 4 are approach, and categories 5-9 are avoidance.

When therapists avoid client material, it is indicative of countertransference issues going on with the therapists. Read over the different categories that we're talking about to get more familiar with them.

When we talk about approach responses, we are looking for responses that are mostly accurate. These responses should be appropriate from a particular theory (e.g., behavioral, humanistic, psychodynamic). Please try to partial out your own theoretical bias since the responses will be coming from a wide range of backgrounds, programs, and theories.

Coding procedure

Read over the background information about the client given to the therapist prior to seeing the client so you know what the therapists already knew about the client and her life. In addition to this background information, therapists were also asked to assume they had already had two previous sessions with the client. Thus, therapists may make explicit reference to or suggestions based on the background information or the two assumed previous sessions.

If there is evidence that the reference or suggestion is related to the assumed previous sessions or background information, it would probably be coded as 2 (exploration). If a suggestion or reference seems to come out of left field and doesn't seem to fit with the flow of material, however it might be coded as 5 (disapproval) or 7 (ignoring).

Read the client's speaking turn that corresponds to the therapist's speaking turn prior to coding.

For example, the client's first speaking turn (the monologue) contains upsetting and shocking news about her health, a possible cancer diagnosis. If the therapist doesn't acknowledge the client's feelings about her health news in some way during that speaking turn, at least one therapist response would be coded as a 7 (ignoring) since they are ignoring affect and a major concern that the client has brought up.

Additionally, it's important for the feeling that the therapist reflects matches the feeling(s) that the client is experiencing (e.g., reflection (3) vs. mislabeling (7)).

We will code all of the units within a speaking turn, and code the each entire speaking turn as well.

To code a speaking turn and its units, first read the entire speaking turn.

For instance, if there are 5 units within the first speaking turn (T1), make sure to read all 5 units before beginning to rate the first one. The idea is to listen to the music rather than the individual notes. Also, most ambiguous responses are much easier to code in the context of the entire unit.

Also, listen to the audio recording, which is available in DropBox/Recordings

Assign each unit to a response mode category

use the number assigned the the response categories, e.g., approval would be entered as "1."

Please do not spend time debating between categories within approach or avoidance.

In other words, if you are torn between choosing one of two approach responses for an individual unit, just choose one without much debate. It is very tempting to think

too much about this! However, the distinction between the two general categories of approach vs. avoidance is all that matters in the end.

Assign response category to the entire speaking turn, using the number assigned to the response categories.

The response category for the overall speaking turn might reflect the categories of the units, but sometimes the speaking turn might have a different feel to it when the entire turn is taken as a whole.

A speaking turn might have several units that are avoidant, yet the overall impression of the speaking turn is not avoidant.

Or, few or none of the units might be avoidant, but the speaking turn as a whole may come across as avoidant, for example disapproval or ignoring client affect.

It's important to note that 5 (disapproval) can be very subtle. Wording/phrasing of the therapist's response can make the difference between an approach response vs. an avoidance response. For example, if the therapist is dismissive of the clients concerns, this could be subtle disapproval.

If a therapist has fewer units in a speaking turn than are listed on the spreadsheet (which is likely) type 0. If a therapist has more units, add another column(s) to the spreadsheet where the additional unit(s) should be.

Response Mode Categories

Approach Responses:

Approval:

Therapist appropriately sanctions, accepts, or supports the clients feelings or behaviors; and/or

Therapist expresses explicit agreement with the client's feelings or behaviors when there is sufficient evidence for such agreement.

Exploration:

Therapist asks for further clarification, elaboration, and detailing of the clients feelings or behaviors; and/or

Therapist makes suggestions that seem to fit well with the client's material.

Reflection:

Therapist repeats or restates the clients feelings;

Therapist accurately re-labels the clients feelings, attitudes, or behaviors; and/or

Therapist reflects content when only content is given.

Labeling/Interpretation:

Therapist points out patterns in the clients feelings or behaviors;

Therapist suggest relationships between present feelings or behavior and past experiences; and/or

Therapist suggests underlying causes of feelings or behavior.

Avoidance Responses:

Disapproval:

Therapist is critical of the client's feelings or behaviors. Even if the statement is phrased supportively, anything that negates or opposes the clients feeling is disapproval.

Ignoring:

Therapists responds to the content of the clients material but ignores the affect; and/or
Therapist seems to miss the point the client is expressing and instead comes from the therapist's own agenda or needs.

Mislabeled:

Therapist inaccurately identifies the clients feelings, attitudes, or behaviors; and/or
Therapist inaccurately identifies the degree of feelings.

Topic Transition:

Therapist changes the focus of discussion to an irrelevant topic or simply to a different topic.

Colluding/Inappropriate approval

Therapist expresses excessive approval of client.

Therapist sides or expresses agreement with client when there is not sufficient warrant for such siding with or agreement.

Therapist shares or possesses client's feelings without warrant, e.g., becomes too easily upset or sad when the client is upset or sad.

Other:

Therapist's response does not fit any of the other categories. Try to absolutely rule out the other possibilities before choosing this category.

Appendix J: Skewness and Kurtosis

Table 12. Skewness and kurtosis of main variables

	Skewness	Kurtosis
Countertransference Factors Inventory-D	-1.48	1.18
Defense Style Questionnaire	-0.91	-0.70
State-Trait Anxiety Scale-State	0.96	0.16
Death Anxiety Scale	1.27	1.20
Approach-Avoidance	0.69	-1.11
Cognitive Countertransference	9.40	20.28

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