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Predicting Psychological Mindedness: Anxiety and Attachment Style

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Abstract

Psychological mindedness (PM) has been studied primarily as a psychotherapy-related variable. There is a limited and inconclusive body of research exploring the relationship between PM and developmental constructs like attachment style. Additionally, there is a limited and contradictory body of research regarding the relationship between PM and various types of anxiety. This study explored the relationships between PM, anxiety, and attachment style. Significant negative relationships were found between PM and three types of anxiety (state, trait, and social). Significant inverse relationships were found between PM and anxious and avoidant attachment to peers, mother, and father. Trait anxiety and avoidant attachment to peers emerged as significant predictors of PM. Theoretical and clinical implications are discussed.

Keywords: psychological mindedness, attachment, anxiety

Introduction

Psychological mindedness (PM) is a construct that originated within psychoanalytic theory and has since been adopted by clinicians of varying orientations as a central concept in psychotherapy research. The term *psychological mindedness* is often used interchangeably in clinical settings with others, such as insight, reflectiveness, self-awareness, or adaptive ego functioning. PM is generally understood as a psychological attribute that is important in the processing and interpretation of personal thoughts and social cues from the surrounding environment. Although PM is a widely discussed construct within psychotherapy research, the mechanisms that lead to the development of PM are not well understood. PM has its roots in the development of the self in relation to others, but few studies have sought to assess PM in relationship to specific developmental constructs (Hall, 1992; Skill & Lumley, 2002), such as attachment style. Similarly, little is known about PM's relationship to various forms of anxiety. The current study examines the relationships between PM and attachment style as well as the role of anxiety in relation to PM.

Defining Psychological Mindedness

PM has been defined in a variety of ways over the years and each subsequent definition has varied in the degree to which it has emphasized the self, others, or mutuality between the two. PM was first explicitly defined by Appelbaum (1973, p. 36) as, "a person's ability to see relationships among thoughts, feelings, and actions with the goals of learning the meanings and causes of his experiences and behaviors." This ability to apprehend and interpret feelings requires a significant degree of cognitive ability and a curiosity about the motives

and internal mental life of others. According to Appelbaum's definition, true PM requires an individual to move beyond simply acknowledging the relationships between feelings and actions, incorporating a deep curiosity about the meaning of these relationships.

Since Appelbaum's first description of PM, many have attempted to operationalize the term. Some have emphasized the ability to read between the lines of what another person does and says (Dollinger, Greening, & Tylanda, 1985) or the ability to recognize and apply unconscious components of the mind to one's own difficulties (McCallum & Piper, 1990). Hall (1992) highlighted two dimensions of PM: (1) an interest in and ability to reflect on one's own psychological states and processes; and (2) the ability to evaluate emotional aspects of relationships and thoughts and to intellectually understand these processes. Conte, Ratto, and Karasu (1996) explained that PM as a willingness to try to understand the self and others, a belief in talking about one's problems, being receptive to new ideas, and the ability to explore one's feelings. Finally, Hatcher and Hatcher (1997) defined PM as the capacity to achieve psychological understanding of oneself and others, a complex capacity, built on both cognitive and emotional skills that are gained over time through development. Their definition suggests that PM is a dynamic construct that is influenced by genetics and the ever-changing emotional and interpersonal environment. PM is currently thought to overlap theoretically with mentalization (Choi-Kain & Gunderson, 2008).

Empirical Research on Psychological Mindedness

Although PM is frequently mentioned as a theoretical construct in clinical papers, there is a limited body of empirical research (Hall, 1992;

Taylor, 1995) on this topic. Empirical exploration of PM-related concepts started with *The Psychotherapy Research Project* of the Menninger Foundation (Wallerstein, Robbins, Sargent, & Luborsky, 1956) which assessed participants' ability to cognitively apprehend relationships, meanings, and causes behind affective experiences. Research on PM has grown slightly over the past few decades, and has been shown to have several significant correlates, most often within the realm of psychotherapy research.

PM appears to grow and develop over the course of psychotherapy, and across treatment modalities (Nyklíček, Majoor, & Schalken, 2010) and diagnostic categories (McCallum & Piper, 1990; Vinnars, Thormählen, Gallop, Norén, & Barber, 2009). PM is also positively correlated with the number of therapy sessions patients will attend (Conte et al., 1990). Higher premorbid levels of PM are associated with more favorable outcome in psychotherapy (Piper, Joyce, Rosie, & Azim, 1994; Joyce, Ogrodniczuk, Piper, & McCallum, 2003). High-PM individuals have greater expectations for self-involvement in psychotherapy, contribute a higher degree of patient work during treatment (Piper, et al., 1994), and have more optimistic expectations of treatment outcomes (Beitel, et al., 2009). High-PM individuals also make higher ratings of perceived benefit post-treatment (McCallum, Piper, & O'Kelly, 1997). High-PM individuals may be more likely to make better use of treatment because they are better able to tolerate ambiguity (Werman, 1979; Beitel, Ferrer, & Cecero, 2004), a core task of most psychotherapy. Those with higher levels of PM are less likely attribute outcomes of events to external circumstances (low external locus of control) and less likely to rely on magical thinking (Beitel, et al., 2004).

PM is generally thought to be associated with alexithymia (Taylor, 1995) though some empirical studies have questioned this theoretical link (Joyce, et al., 2003). Some psychotherapy research suggests that low-PM individuals may be better suited to short-term supportive dynamic psychotherapy in order to help contain anxiety and build ego strengths (Smith, 2008).

PM is negatively correlated with the Big Five personality trait, neuroticism (Beitel & Cecero, 2003). High-PM individuals demonstrate a greater ability to accurately assess others' personalities (Wolitzky & Reuben, 1974) and to provide emotional responsiveness (Farber, 1989). PM is also associated with private self-consciousness, empathy, and mindfulness (Beitel, Ferrer, & Cecero, 2005), thus

supporting theoretical claims that PM involves awareness of self and others. High-PM individuals also report lower self-esteem (Farber, 1989) which may be attributable to an increased level of self-consciousness or a more realistic self-appraisal. PM is inversely related to social anxiety and high-PM individuals are more likely to remain calm and attentive in emergency situations (Beitel, et al., 2005). PM is also associated with innate personality characteristics such as openness to experience and extraversion (Beitel & Cecero, 2003).

Attachment Style and Psychological Mindedness

Attachment, the affective bond between child and caregiver, has its roots in evolutionary and psychoanalytic theory. It unfolds through the first and most important relationship a child develops, the complex and dynamic bond between child and caregiver. Attachment style is thought to be one of the key factors in the sculpting the adult personality (Bowlby, 1988). There are four distinct types of attachment styles an infant can develop (Ainsworth, Blehar, Waters, & Wall, 1978) and these styles become the blueprints for social interaction that tend to persist across the lifespan.

Three types of attachment style – secure, anxious, and avoidant – were first assessed and defined in children aged 12-18 months using *The Strange Situation* task (Ainsworth, et al., 1978). Children with secure attachment are alarmed and upset when the primary caregiver is absent, but are easily soothed upon the caregiver's return. Bowlby (1988) explained that secure attachment evolves out of a young child's desire to gain proximity to an adult who serves as a secure base from which to explore the world. Those who are unable to do this, due to an interaction of temperamental variables and the caregiving environment, may develop an insecure attachment style that is anxious or avoidant.

Anxious or ambivalent/resistant attachment is evident in children who are distressed upon the caregiver's absence and remain inconsolable and angry upon their return. Children with ambivalent/resistant attachment style struggle to use the caregiver as a secure base and are consistently preoccupied with the caregiver's availability. The child's need for comfort is in direct conflict with their desire to punish the caregiver for their absence. This type of attachment style is thought to develop in the face of a caregiver who is inconsistent, vacillating between appropriate and neglectful degrees of responsiveness.

Avoidant attachment is demonstrated by children who show little affective response to the

caregiver's absence and makes little effort to seek comfort or contact with the caregiver when reunited. There is little differentiation between the primary caregiver and the stranger and both are treated with the same degree of disinterest. Caregivers who provide minimal response to the child's distress or who place too much emphasis on self-sufficiency promote this type of attachment style.

The classification of attachment in children has since been applied to taxonomies for adult attachment styles, particularly as they relate to romantic relationships (Hazan & Shaver, 1987), peer relationships (Bartholomew & Horowitz, 1991), and therapeutic alliance (Diener & Monroe, 2011). More recently, research has challenged the utility of using a categorical method of attachment style classification (Fraley, Waller, & Brennan, 2000; Roisman, Fraley, & Belsky, 2007) and has turned toward a dimensional and relationship-specific approach to classifying attachment styles (Fraley, Heffernan, Vicary, & Brumbaugh, 2011).

Two dimensions – attachment-related anxiety and attachment-related emotional avoidance – have emerged (Bartholomew, 1990; Bartholomew & Horowitz, 1991). These two conceptual dimensions allow for four categories of attachment functioning to be described (Griffin & Bartholomew, 1994; Fraley & Shaver, 2000). In keeping with original taxonomy for attachment styles, individuals with low anxiety and minimal avoidance are considered to have a *secure* attachment style. Three additional categories help illuminate the defensive strategies employed by people with insecure attachment styles. Those with high attachment-related anxiety and low avoidance are likely to be *preoccupied* with the attachment figure's proximity and responsiveness. They are likely to engage in proximity-seeking behaviors, experience hypervigilance, and be generally insecure. Those who demonstrate avoidance may be high or low in their degree of anxiety. Those with high levels of anxiety and avoidance are termed *fearful-avoidant*. They experience numerous attachment-related concerns but they manage their feelings about them by avoiding closeness. Individuals with low levels of anxiety and high levels of avoidance are referred to as *dismissing-avoidant*. They appear to have few attachment-related concerns and may downplay the impact of the attachment figure's proximity or distance. It remains unclear whether those with *dismissing-avoidant* attachment styles are truly free of attachment-related concerns or if these insecurities remain unconscious and are managed via high levels of avoidance.

Attachment style is predicated on internal working models that help the individual interpret and learn from the actions of others. These schemata are essential components of social and emotional life and create a framework that allows one to understand the motivational and affective states of others. Additionally, attachment style has been understood as a way to manage underlying, and potentially unconscious, emotions and cognitions (Fraley & Shaver, 1997; Fraley, Davis, & Shaver, 1998). These qualities are also elements of PM, and it is theoretically plausible that there is a link between attachment and PM.

Several studies have supported the link between PM and attachment style. Highly psychologically minded individuals report having parents who were benevolent and caring, rather than cold and rejecting (Alvarez, Farber, & Schonbar, 1998). Low levels of PM were associated with perceptions of early maternal rejection, suggesting that the development of PM may be attributable to maternal empathy, responsive affect and behavior throughout the child's development (Alvarez, et al., 1998). In a study of attachment styles, PM, and therapeutic success among psychiatric staff, low levels of attachment anxiety and avoidance were associated with more positive therapeutic relationships (Berry, et al., 2008). Higher levels of attachment avoidance were correlated with poorer staff PM. Berry et al. (2008) suggest that individuals with avoidant attachment have more difficulty forming close relationships which, in turn, impairs their ability to consider the thoughts and feelings experienced by both parties in interpersonal situations.

In a similar line of inquiry, Cecero, Beitel, and Prout (2008) explored the relationship between early maladaptive schemas (EMS) and PM. EMS are cognitive frameworks for understanding the self and one's relationships with others. They are developed during childhood, are elaborated throughout the lifespan, and are dysfunctional to a significant degree. EMS can also be understood as internal working models that represent various types of insecure attachment. Examples of EMS domains include disconnection and rejection, impaired autonomy, and hypervigilance and inhibition. Individuals with EMS exhibited lower levels of PM (Cecero, et al., 2008) than those who endorsed more adaptive schemas.

In contrast, Beitel and Cecero (2003) found little empirical support for the possible association between parental attachment security and PM. Parental attachment was not a predictor of PM,

although a relationship was found between peer attachment and PM. Given this contradictory data and recent evidence that attachment style is highly domain specific (Fraley, et al., 2011; Fraley, Vicary, Brumbaugh, Chloe & Roisman, 2011) further research is warranted to clarify these findings. The current study aimed to further elucidate the relationship between attachment style and PM. It was expected that by using a different and more reliable measure of attachment security, this study would provide further evidence for a significant relationship between parental and peer attachment and PM.

Attachment Style and Anxiety

Although they overlap in some ways, anxiety, as a general construct, is distinct from attachment anxiety. Anxiety is an internal state which is usually characterized by feelings of uneasiness, distress, fear or dread. There are generally thought to be two types of anxiety: trait and state (Spielberger, Gorsuch, & Lushene, 1970). Trait anxiety is relatively stable and suggests a predisposition to anxiety that is fundamental to an individual's personality. People who are highly trait anxious are more likely to perceive situations as threatening and dangerous (Gaudry, Vagg, & Spielberger, 1975).

In contrast, state anxiety is a temporary emotional state or condition marked by feelings of apprehension and tension, and activation of the autonomic nervous system (Gaudry, et al., 1975). State anxiety varies in its intensity and vacillates over time in response to stressors. A subset of state anxiety, relevant to the current study, is social anxiety which is defined as the experience of discomfort in the presence of others (Feningstein, Scheier, & Buss, 1975). Research suggests an inverse relationship between PM and social anxiety (Beitel, et al., 2005).

It is likely that attachment styles develop partly in an effort to modulate anxiety, particularly with respect to real or perceived interpersonal losses. Several researchers have highlighted the defensive function of attachment styles (Main & Weston, 1982; Main, 1993; Fraley & Shaver, 1998). The suggestion is that *all* attachment patterns enable individuals to better regulate distressing affects and cognitions. For those whose attachment style is characterized by anxiety, the preoccupation with the caregiver (or in adulthood, romantic partner) and continual checking-in with the attachment figure serves to lessen anxiety, albeit temporarily. Similarly, patterns of avoidance are thought to allow the individual to maintain the

illusion of security in the face of a rejecting or unresponsive caregiver/partner.

There is much debate about the relationship between avoidant attachment and vulnerability. For example, some research suggests that those with dismissing-avoidant attachment style are troubled by latent insecurities and vulnerabilities (Onishi, Gjerde, & Block, 2001). Others (Fraley & Shaver, 1997) have argued that dismissing-avoidant individuals may be better equipped to block attachment system activation because they avoid close attachments. Fraley and Shaver (1997) sought to explore the question of whether dismissing-avoidant adults are simply denying their attachment insecurities or are, in fact, more skilled at managing such relational concerns. When asked to suppress the thought of their partner abandoning them, dismissing-avoidant (in contrast to fearful-avoidant) adults were capable of suppressing unwanted cognitive intrusions and experienced less sympathetic nervous system activation associated with anxiety (Fraley & Shaver, 1997). Additionally, individuals with secure and dismissing-avoidant attachment styles appear to experience low levels of bereavement-related anxiety in comparison to those with preoccupied-anxious and fearful-avoidant attachment patterns (Fraley & Bonanno, 2004). These data suggest that dismissing-avoidant adults are not simply concealing latent distress; rather, they may be capable of suppressing anxiety provoking thoughts due to a pattern of focusing their attention away from thoughts that activate attachment-related networks. This ability may arise out of a developmental environment in which free expression of negative affects was discouraged (Bartholomew, 1990).

Numerous questions, regarding the degree of psychological vulnerability and latent distress among emotionally avoidant individuals, remain. Given the complex and varied data on attachment style and anxiety, the current study sought to explore the relationship between attachment style and several types of anxiety. In particular, attachment style was examined in relation to trait, state, and social anxiety.

Hypotheses

One purpose of this study was to further explore the links between anxiety, attachment style, and PM. There were four hypotheses in this study. (1) It was hypothesized that PM would be negatively associated with all types of anxiety (state, trait, and social) and (2) inversely correlated with anxious and avoidant attachment styles across domains (mother, father, and peers). (3) Additionally, it was expected that attachment avoidance and anxiety would be associated with higher levels of state, trait, and social

anxiety. (4) It was hypothesized that variables related to basic personality functioning – namely, trait anxiety and attachment style – would be most predictive of PM.

Method

Participants

The data set consisted of responses from 120 undergraduates who were recruited from introductory and intermediate psychology courses at a liberal arts college. There were 100 females and 20 males (this was representative of the gender imbalance of the college's population), ranging in education level from freshmen to seniors; 53% were freshmen, 20% were sophomores, 17% were juniors, and 10% were seniors. The sample was representative of the diverse population of the college: 31% (37) Caucasian, 50% (50) Hispanic, 10% (12) African American, 11% (13) Asian, 1% (1) Native American, and 6% (7) described themselves as multi-racial.

An a priori power analysis was conducted to determine the number of participants required to detect a medium effect size of .15 with nine possible predictors (Cohen, 1992). G*POWER (Faul, Erdfelder, Lang, & Buchner, 2007) was used to conduct the analysis. The results indicated that 114 participants would be required if power were set to .80. In all, 120 participants were recruited.

Measures

Psychological mindedness. *The Psychological Mindedness Scale* (PM Scale; Conte, et al., 1990) was used to assess PM. The PM Scale is a 45-item self-report measure that assesses PM in individuals based upon a four-point scale ranging from *strongly disagree* to *strongly agree*. The measure includes items like: "I am always curious about the reasons people behave as they do," and "Often I don't know what I'm feeling." The PM Scale has demonstrated good temporal stability ($r(20) = .92$) and internal consistency ($\alpha = .87$). Concurrent and discriminant validity estimates are also promising. The PM Scale correlates positively with the Self-Evaluation Questionnaire (SEQ; Conte, Buckley, Picard, & Karasu, 1995), a measure of ego functioning. The PM Scale has demonstrated negative correlations ($r(83) = -.86, p < .01$) with the Toronto Alexithymia Scale (TAS-20).

Attachment styles. Attachment style was assessed using the *Experiences in Close Relationship – Revised* (ECR-R; Fraley, Waller, & Brennan, 2000). The ECR-R is a 36-item self-report attachment measure that asks respondents to rate items on a 7-point scale ranging from *strongly*

disagree to *strongly agree*. It produces scores on two attachment subscales: Anxiety (fear of rejection and abandonment) and Avoidance (discomfort with closeness and depending on others) and. Sample items include, "I am afraid I will lose my [mother's] love," and "I am comfortable depending on my [mother]." Internal consistency estimates for the anxiety and avoidance subscales have consistently been .90 or higher (Brennan, Clark, & Shaver, 1998; Fraley, Waller, Brennan, 2000; Sibley & Liu, 2004). Additionally, the ECR-R subscales have shown remarkable consistency over a six-week assessment period (Sibley & Liu, 2004).

Anxiety. Three types of anxiety were assessed. State and trait anxiety were measured with the *State and Trait Anxiety Inventory* (STAI; Spielberger, et al., 1970). The STAI is comprised of two 20-item subscales intended to measure generalized (trait) anxiety and acute (state-dependent) anxiety. Individuals are asked to respond items like, "I am calm, cool, and collected," and, "I feel nervous," on a 4-point scale ranging from *not at all* to *very much so*. Both trait and state subscales have demonstrated a high degree of internal consistency, ranging from .83 to .94 (Spielberger, et al., 1970). The trait scale has high test-retest reliability, ranging from .73 to .86 (Spielberger, et al., 1970). As expected, the state scale, which is intended to measure variation in stress levels across situations, has less stable test-retest reliability (.16 to .54).

Liebowitz Social Anxiety Scale – Self-Report (LSAS-SR; Baker, Heinrichs, Kim, & Hofmann, 2000) was used to measure social anxiety. The LSAS-SR is a 24-item measure that asks respondents to report the degree of anxiety felt (ranging from *none* to *severe*) in response to particular events including, "Talking to people in authority," "Urinating in a public bathroom," and "Talking to people in authority." Additionally, the measure asks individuals to rate the frequency with which they avoid these potentially anxiety-provoking activities. The LSAS-SR is based on the widely used clinician-administered Liebowitz Social Anxiety Scale (LSAS-CA) and several studies have demonstrated that the two types of assessment have comparable internal consistency, test-retest reliability, and convergent and discriminant validity. When psychometric properties of the LSAS-SR and the LSAS-CA were examined within the same population (non-anxious controls), alpha was .95 and .92, respectively (Fresco, et al., 2001). Within a population of individuals with social anxiety disorder, alpha was .95 for both.

Procedures

Participants were recruited from undergraduate psychology courses at a Catholic liberal arts college. The students were offered extra credit for their participation in this study. Informed consent and the aforementioned measures were distributed to all students who expressed an interest in participating. Students provided informed consent and completed all measures outside of class at their own convenience. They returned the study materials in an unmarked envelope to the Psychology Department office on campus. All instruments were distributed in a counterbalanced order. The participants were debriefed with a written statement upon completion of the study.

Results

Means, standard deviations, ranges, and alpha coefficients for all measures are shown in Table 1. Correlations between all study variables were calculated with Pearson's r . Detailed results can be seen in Table 2. As expected, PM was significantly negatively correlated with state anxiety ($r(106) = -.35, p < .01$), trait anxiety ($r(106) = -.41, p < .01$), social anxiety ($r(109) = -.34, p < .01$), and social avoidance ($r(108) = -.36, p < .01$). PM was inversely correlated all types of insecure attachment (anxious and avoidant) across domains (mother, father, and peer).

A hierarchical multiple regression was conducted to evaluate possible predictors of PM. Tests for multicollinearity indicated an acceptably low level of inter-relationships between predictor variables. Those variables thought to be more emblematic of fundamental personality functioning – trait anxiety and attachment style – were entered in the first step. More transient variables – state anxiety and social anxiety – were entered in the second step. Analysis was performed using SPSS REGRESSION. Results of the regression analysis provided partial confirmation for the research hypothesis. In the first step, trait anxiety and avoidant peer attachment emerged as significant predictors of PM. The other variables in the first step – anxious and avoidant maternal and paternal attachment, and anxious peer attachment – did not demonstrate significant effects. Variables entered in the second step – state anxiety and social anxiety – did not significantly improve the fit of the model. Detailed results can be seen in Table 3.

Discussion

The purpose of this study was to examine the relationships between anxiety, attachment style,

and PM. The findings suggest that higher levels of anxiety and attachment insecurity are associated with lower levels of psychological mindedness.

As expected, PM was negatively associated with state, trait and social anxiety. It may be that as a result of being more psychologically minded, a person is less likely to feel apprehensive in social situations that may elicit stress for people with high levels of anxiety. The second possibility is that those who experience lower levels of anxiety are better-equipped to become psychologically minded because they have greater available resources of time, energy, and thoughts to evaluate themselves and those around them. The ability to anticipate and understand others' actions and words is a key component of being psychologically minded (Conte et al., 1996). Those who are unhampered by anxiety may be better able to explore their own feelings and consider alternative perspectives.

This study sought to better understand the relationship between attachment and PM, given the seemingly contradictory evidence from two prior studies. Alvarez et al. (1998) found a negative relationship between PM and perceptions of early motherhood rejection, whereas Beitel and Cecero (2003) found no association between parental attachment and PM, but found peer attachment to be a significant predictor of PM.

In the current study, paternal and peer attachment insecurity were universally associated with lower levels of PM. The ability to be introspective and to reflect on the feelings and motives of self and other appears to be less robust among individuals with a higher degree of attachment-related insecurity. This was true for both attachment-related avoidance and attachment-related anxiety across domains. These results suggest that attachment insecurity is associated with a decreased capacity for self-reflection and personal insight. It may be that security in relationships allows the individual to consider multiple possibilities and to engage more readily with the observing ego. If attachment insecurities are understood as defensive styles that allow the individual to better manage relational anxiety, it follows that anxious and avoidant attachment styles will create distance between the individual and their more primitive or impulsive wishes and fears. Conversely, those who develop secure attachments can mentally move from the secure base to consider potential psychic conflicts, fantasies, and unconscious motivations with less of a threat to one's sense of self. These findings are valuable because they suggest that the more secure one is in regards to their relationship with their

primary caregiver, the more likely they are to develop a healthy mindset and become a more psychologically minded individual.

There has been considerable debate about the degree of psychopathology and latent distress experienced by individuals with attachment-related avoidance. This study demonstrated inverse relationships between all types of anxiety – state, trait, and social – and *both* anxious and avoidant attachment styles. The one exception was the relationship between avoidant maternal attachment and state anxiety which was in the expected direction but did not achieve significance. Based on these results it seems that both types of attachment-related insecurity, which manifest very differently, are associated with higher levels of characterological and situational anxiety. Even those with attachment-related avoidance, who appear to have minimal concern for the attachment figure, experience higher levels of anxiety.

Results suggest that PM is significantly tied to a variety of the factors that were explored in this study. The current study included three domains of attachment security and three domains of anxiety as possible predictors of PM. It was hypothesized that variables related to basic personality functioning – namely, trait anxiety and attachment style – would be most predictive of PM. Regression analysis showed that trait anxiety and avoidant peer attachment were predictive of PM. The characterological nature of trait anxiety lends itself to pervasively affecting an individual, particularly their interpersonal and intrapersonal functioning and capacity for self-reflection. Peer attachments, particularly among college students, are most emblematic of current attachment functioning. These findings support earlier research with similar results (Beitel & Cecero, 2003). These findings also further emphasize the distinction between attachment-related avoidance and attachment-related anxiety. It seems that attachment-related avoidance, rather than anxiety, is more predictive of PM. Theoretically, it seems likely that of the various forms of attachment-related insecurity,

avoidance is less likely to be associated with PM. Those who cope with attachment-related insecurity by denying the experience of such feelings are expected to have less capacity for introspection and self-reflection than those who are anxious and are consistently preoccupied with their own fears.

The clinical implications of these data are significant. PM is often an implied criterion in suitability for psychoanalysis and psychotherapy, but is also often the goal of these same endeavors. As clinicians assist individuals in developing a greater capacity for self-reflection and introspection it is important they consider the relationship between anxiety and PM. Lower levels of PM may allow the anxiously oriented individual avoid or prevent exacerbations of nervousness, fear, and worry. Lack of PM, like attachment insecurity, may aid a person in coping with relational insecurities. While clinicians strive to improve insight and PM, they should be aware of the potential sequelae of this increased awareness. If defenses are understood as adaptive and protective, collaboration with patients should include a healthy respect and acknowledgement of the ways in which lower levels of PM and insecure attachment style may protect an individual from even greater distress.

This study has several limitations that should be noted. The data collection method relied solely on self-report measures which may have resulted in skewed or inaccurate ratings, given that responses were provided from the subjective perspective of the participants. This was a correlational study which limits our ability to address any causal links. Additionally, the population at the data collection site was unique in that it was largely female and non-White. Future research would ideally focus on the developmental nature of psychological mindedness and its roots in the early childhood environment. Clinician or observer ratings of attachment related behaviors such as those employed by Fraley and Shaver (1998) might also create a richer picture of the relationships between the variables of interest.

References

- Ainsworth, M., Blehar, M., Waters, E., & Wall, S. (1978). *Patterns of attachment: A psychological study of the strange situation*. Oxford, England: Lawrence Erlbaum.
- Alvarez, J. R., Farber, B. A., & Schonbar, R. A. (1998). The relationship of psychological mindedness to adult perceptions of early parental rejection. *Journal of Clinical Psychology, 54*(8), 1079-1084. DOI: 10.1002/(SICI)1097-4679(199812)54:8<1079::AID-JCLP7>3.0.CO;2-N
- Appelbaum, S. A. (1973). Psychological-mindedness: Word, concept and essence. *International Journal of Psycho-Analysis, 54*, 35-46.
- Baker, S. L., Heinrichs, N., Kim, H. J., and Hofmann, S. G. (2000). The Leibowitz social anxiety scale as a self-report instrument: A preliminary psychometric analysis. *Behavioural Assessment, 40*(6), 701-715. DOI: 10.1016/S0005-7967(01)00060-2

- Bartholomew, K., & Horowitz, L. M. (1991). Attachment styles among young adults: A test of a four-category model. *Journal of Personality and Social Psychology*, 61, 226-244. DOI: 10.1037/0022-3514.61.2.226
- Beitel, M., & Cecero, J. J. (2003). Predicting psychological mindedness from personality style and attachment security. *Journal of Clinical Psychology*, 59, 169-172. DOI: 10.1002/jclp.10125
- Beitel, M., Ferrer, E., & Cecero, J. (2004). Psychological mindedness and cognitive style. *Journal of Clinical Psychology*, 60, 567-582. DOI: 10.1002/jclp.10258
- Beitel, M., Ferrer, E., & Cecero, J. (2005). Psychological mindedness and awareness of self and others. *Journal of Clinical Psychology*, 61, 739-750. DOI: 10.1002/jclp.20095
- Beitel, M., Hutz, A., Sheffield, K. M., Gunn, C., Cecero, J. J., & Barry, D. T. (2009). Do psychologically-minded clients expect more from counseling? *Psychology and Psychotherapy: Theory, Research and Practice*, 82(4), 369-383.
- Berry, K., Shah, R., Cook, A., Geater, E., Barrowclough, C., & Wearden, A. (2008). Staff attachment styles: A pilot study investigating the influence of adult attachment styles on staff, psychological mindedness and therapeutic relationships. *Journal of Clinical Psychology*, 64, 355-363. DOI: 10.1002/jclp.20456
- Brennan, K. A., Clark, C. L., & Shaver, P. R. (1998). Self-report measurement of adult attachment: An integrative overview. In J. A. Simpson & W. S. Rholes (Eds.), *Attachment theory and close relationships*. New York, NY: Guilford Press.
- Bowlby, J. (1988). *A secure base: Parent-child attachment and healthy human development*. New York: Basic Books.
- Bartholomew, K. (1990). Avoidance of intimacy: An attachment perspective. *Journal of Social and Personal Relationships*, 7(2), 147-178. DOI: 10.1177/0265407590072001
- Bartholomew, K., & Horowitz, L. M. (1991). Attachment styles among young adults: A test of a four-category model. *Journal of Personality and Social Psychology*, 61(2), 226-244. DOI: 10.1037/0022-3514.61.2.226
- Cecero, J. J., Beitel, M., & Prout, T. (2008). Exploring the relationships among early maladaptive schemas, psychological mindedness and self-reported college adjustment. *Psychology and Psychotherapy: Theory, Research and Practice*, 81(1), 105-118. DOI: 10.1348/147608307X216177
- Choi-Kain, L. W., & Gunderson, J. G. (2008). Mentalization: Ontogeny, assessment, and application in the treatment of borderline personality disorder. *The American Journal of Psychiatry*, 165(9), 1127-1135. DOI: 10.1176/appi.ajp.2008.07081360
- Cohen, J. (1992). A power primer. *Psychological Bulletin*, 112(1), 155-159. DOI: 10.1037/0033-2909.112.1.155
- Conte, H. R., Buckley, P., Picard, S., & Karasu, T. B. (1995). Relationships between psychological mindedness and personality traits and ego functioning: Validity studies. *Comprehensive Psychiatry*, 36(1), 11-17. DOI: 10.1016/0010-440X(95)90093-B
- Conte, H., Plutchik, R., Jung, B., Picard, S., Karasu, T., & Lotterman, A. (1990). Psychological mindedness as a predictor of psychotherapy outcome. *Comprehensive Psychiatry*, 31(5), 250-259. DOI: 10.1016/0010-440X(90)90027-P
- Conte, H., Ratto, R., & Karasu, T. (1996). The psychological mindedness scale: Factor structure and relationship to outcome of psychotherapy. *The Journal of Psychotherapy and Research*, 5, 250-259.
- Diener, M. J., & Monroe, J. M. (2011). The relationship between adult attachment style and therapeutic alliance in individual psychotherapy: A meta-analytic review. *Psychotherapy: Theory, Research, Practice, Training*, 48(3), 237-248. DOI: 10.1037/a0022425 ; 10.1037/a0022425.supp
- Dollinger, S. J., Greening, L., & Tyenda, B. (1985). Psychological-mindedness as reading between the lines: Vigilance, locus of control and sagacious judgment. *Journal of Personality*, 53(4), 603-624. DOI: 10.1111/j.1467-6494.1985.tb00386.x
- Farber, B. A. (1989). Psychological-mindedness: Can there be too much of a good thing? *Psychotherapy: Theory, Research, Practice, Training*, 26(2), 210-217. DOI: 10.1037/h0085421
- Faul, F., Erdfelder, E., Lang, A.-G., & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*, 39, 175-191. DOI: 10.3758/BF03193146
- Fenigstein, A., Scheier, M. F., & Buss, A. H. (1975). Public and private self-consciousness: Assessment and theory. *Journal of Consulting and Clinical Psychology*, 43(4), 522-527. DOI: 10.1037/h0076760
- Fraley, R. C., & Bonanno, G. A. (2004). Attachment and loss: A test of three competing models of association between attachment-related avoidance and adaptation to bereavement. *Personality and Social Psychology Bulletin*, 30(7), 878-890. DOI: 10.1177/0146167204264289
- Fraley, R. C., Davis, K. E., Shaver, P. R. (1998). Dismissing-avoidance and the defensive organization of emotion, cognition, and behavior. In J. A. Simpson & W. S. Rholes (Eds.), *Attachment theory and close relationships* (pp. 249-279). New York, NY: Guilford Press.
- Fraley, R. C., Heffernan, M. E., Vicary, A. M., & Brumbaugh, C. C. (2011). The Experiences in Close Relationships-Relationship Structures questionnaire: A method for assessing attachment orientations across relationships. *Psychological Assessment*, 23(3), 615-625. DOI: 10.1037/a0022898
- Fraley, R. C., & Shaver, P. R. (2000). Adult romantic attachment: Theoretical developments, emerging controversies, and unanswered questions. *Review of General Psychology*, 4(2), 132-154. DOI: 10.1037/1089-2680.4.2.132
- Fraley, R. C., & Shaver, P. R. (1997). Adult attachment and the suppression of unwanted thoughts. *Journal of Personality and Social Psychology*, 73(5), 1080-1091. DOI: 10.1037/0022-3514.73.5.1080
- Fraley, R. C., & Shaver, P. R. (1998). Airport separations: A naturalistic study of adult attachment dynamics in separating couples. *Journal of Personality and Social Psychology*, 75(5), 1198-1212. DOI: 10.1037/0022-3514.75.5.1198

- Fraley, R. C., Vicary, A. M., Brumbaugh, C. C., & Roisman, G. I. (2011). Patterns of stability in adult attachment: An empirical test of two models of continuity and change. *Journal of Personality and Social Psychology, 101*(5), 974-992. DOI: 10.1037/a0024150
- Fraley, R. C., Waller, N. G., & Brennan, K. A. (2000). An item response theory analysis of self-report measures of adult attachment. *Journal of Personality and Social Psychology, 78*, 350-365. DOI: 10.1037/0022-3514.78.2.350
- Fresco, D. M., Coles, M. E., Heimberg, R. G., Liebowitz, M. R., Hami, S., Stein, M. B., & Goetz, D. (2001). The Liebowitz Social Anxiety Scale: A comparison of psychometric properties of self-report and clinician-administered formats. *Psychological Medicine, 31*, 1025-1035. DOI: 10.1017/S0033291701004056
- Gaudry, E., Vagg, P., & Spielberger, C. (1975). Validation of the state-trait anxiety distinction in anxiety research. *Multivariate Behavioral Research, 13*(3), 331-341. DOI: 10.1207/s15327906mbr1003_6
- Griffin, D. W., & Bartholomew, K. (1994). Models of the self and other: Fundamental dimensions underlying measures of adult attachment. *Journal of Personality and Social Psychology, 67*(3), 430-445. DOI: 10.1037/0022-3514.67.3.430
- Hall, J. A. (1992). Psychological-mindedness: A conceptual model. *American Journal of Psychotherapy, 46*, 131-140.
- Hatcher, R. L., & Hatcher, S. L. (1997). Assessing the psychological mindedness in children and adolescents. In M. McCallum & W.E. Piper (Eds.), *Psychological mindedness: A contemporary understanding*. (pp. 55-75). Mahwah, NJ: Erlbaum.
- Hazan, C., & Shaver, P. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology, 52*(3), 511-524. DOI: 10.1037/0022-3514.52.3.511
- Joyce, A. S., Ogrodniczuk, J. S., Piper, W. E., & McCallum, M. (2003). The alliance as mediator of expectancy effects in short-term individual therapy. *Journal of Consulting and Clinical Psychology, 71*(4), 672-679. DOI: 10.1037/0022-006X.71.4.672
- Main, M. (1993). Discourse, prediction, and recent studies in attachment: Implications for Psychoanalysis. *Journal of the American Psychoanalytic Association, 41*, 209-244.
- Main, M., & Weston, D. R. (1982). Avoidance of the attachment figure in infancy. In M. Parkes & J. Stevenson-Hinde (Eds.), *The place of attachment in human behavior*. New York, NY: Basic Books.
- McCallum, M. & Piper, W. E. (1990). The Psychological Mindedness Assessment Procedure. *Psychological Assessment: A Journal of Consulting and Clinical Psychology, 2*(4), 412-418. DOI: 10.1037/1040-3590.2.4.412
- McCallum, M., Piper, W. E., & O'Kelly, J. (1997). Predicting patient benefit from a group-oriented, evening treatment program. *International Journal of Group Psychotherapy, 47*(3), 291-314.
- Nyklíček, I., Majoor, D., & Schalken, P. A. A. M. (2010). Psychological mindedness and symptom reduction after psychotherapy in a heterogeneous psychiatric sample. *Comprehensive Psychiatry, 51*(5), 492-496. DOI: 10.1016/j.comppsy.2010.02.004
- Onishi, M., Gjerde, P. F., & Block, J. (2001). Personality implications of romantic attachment patterns in young adults: A multi-method, multi-informant study. *Personality and Social Psychology Bulletin, 27*(9), 1097-1110. DOI: 10.1177/0146167201279003
- Piper, W. E., Joyce, A. S., Rosie, J. S., & Azim, H. F. (1994). Patient characteristics and success in day treatment. *Journal of Nervous and Mental Disease, 182*(7), 381-386. DOI: 10.1097/00005053-199407000-00003
- Roisman, G. I., Fraley, R. C., & Belsky, J. (2007). A taxometric study of the Adult Attachment Interview. *Developmental Psychology, 43*(3), 675-686. DOI: 10.1037/0012-1649.43.3.675
- Shill, M. A., & Lumley, M. A. (2002). The Psychological Mindedness Scale: Factor structure, convergent validity and gender in a non-psychiatric sample. *Psychology and Psychotherapy: Theory, Research and Practice, 75*(2), 131-150. DOI: 10.1348/147608302169607
- Sibley, C. G., Fischer, R., & Liu, J. H. (2005). Reliability and validity of the Revised Experiences in Close Relationships (ECR-R) self-report measure of adult romantic attachment. *Personality and Social Psychology Bulletin, 31*(11), 1524-1536. DOI: 10.1177/0146167205276865
- Smith, J. D. (2008). A leap across a basic fault: Brief Supportive Dynamic Therapy. *Psychodynamic Practice, 14*(4), 421-439. DOI: 10.1080/14753630802364699
- Spielberger, C., Gorsuch, R., & Lushene, R. (1970). *Manual for the state-trait anxiety (self-evaluation questionnaire)*. Palo Alto, CA: CPP.
- Taylor, G. J. T. (1995). Psychoanalysis and empirical research: The example of patients who lack psychological mindedness. *Journal of American Academy of Psychoanalysis, 23*, 263-281.
- Vinnars, B., Thormählen, B., Gallop, R., Norén, K., & Barber, J. P. (2009) Do personality problems improve during psychodynamic supportive-expressive psychotherapy? Secondary outcome results from a randomized controlled trial for psychiatric outpatients with personality disorders. *Psychotherapy: Theory, Research, Practice, Training, 46*(3), 362-375. DOI: 10.1037/a0017002
- Wallerstein, R. S., Robbins, L. L., Sargent, H. D., & Luborsky, L. (1956). The psychotherapy research project of the Menninger Foundation. *Bulletin of the Menninger Clinic, 20*, 221-278.
- Werman, D. S. (1979). Chance, ambiguity, and psychological mindedness. *Psychoanalytic Quarterly, 48*, 107-115.
- Wolitzky, D. L., & Reuben, R. (1974). Psychological-mindedness. *Journal of Clinical Psychology, 30*(1), 26-30. DOI: 10.1002/1097-4679(197401)30:1<26::AID-JCLP2270300104>3.0.CO;2-H

Table 1
Scale Descriptive Statistics

Scale	M	SD	Range	α
PM Scale	128.38	11.49	88-155	.82
STAI-S	41.78	13.17	20-71	.94
STAI-T	44.26	10.33	21-72	.88
Social Anxiety	25.54	11.80	0-67	.89
ECR-R Anxiety Mother	2.17	1.06	1-5.44	.90
ECR-R Avoidance Mother	2.70	1.42	1-6.78	.96
ECR-R Anxiety Father	2.47	1.46	1-6.89	.95
ECR-R Avoidance Father	3.83	1.57	1.33-6.67	.94
ECR-R Anxiety Peer	2.92	1.39	1-7	.95
ECR-R Avoidance Peer	2.53	1.13	1-7	.93