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CLINICAL DECISION-MAKING IN DOMESTIC VIOLENCE SCENARIOS: THE
INFLUENCE OF EXPERIENCE, INFORMATION OBTAINED, PERSONAL
BIAS, AND EMOTIONAL CONTAGION

A Dissertation in
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by

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Abstract

This study builds on previous research examining the factors that influence clinician decision-making, specifically in response to domestic violence issues. Data from 219 clinicians (counselors, social workers, and psychologists with a final sample size of 182) were gathered from several online listservs and member directories. The dependent variable was the treatment decision selected by the clinician when presented with a vignette indicating mutual aggression between two gender-neutral clients. The independent variables were the amount of social context information included in the vignette, the participants' reported years of experience as a clinician, their score on the Beliefs About Male Emotions Scale (BAME), and their score on the Emotional Contagion Scale (ECS). The amount of social context information available to the participant was manipulated as part of the study design.

Multivariate analysis of variance (MANOVA) and univariate analysis of variance (ANOVA) were used to compare mean differences and interaction effects between participants selecting couples treatment and participants selecting individual treatment. Amount of social context information provided to clinicians had a significant impact on decision making, as clinicians with more social context information were less likely to select the couples treatment option. Participants' years of experience, ECS, and BAME scores were not found to have any significant differences between groups. Participants reporting a past history of encountering battering in their clinical work were significantly less likely to select couples treatment. Participants selecting the couples treatment option indicated significantly

less certainty in their selected treatment option than those selecting individual treatment. Implications for practice and research are discussed.

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“...and as the wolf looks into his eyes, he’ll know that this is his spirit animal. Of course you can only meet your spirit animal when you’re alone.” – excerpt from the Cub Scout Wolf Rank Ceremony.

Chapter 1

Introduction

The difference between the art and science of counseling practice can potentially be explained as an incongruity between the emotional aspects of the counselor and the research supported factors that govern the therapeutic process. Garb (2005) describes the discrepancy between these two areas as romanticist versus empiricist, with romanticists being those who base their clinical practice primarily on personal experiences and observations, and empiricists as clinicians who base their work more on peer supported scholarship. While the best solution may be a blend of these two basic ideals, the notion that the practice of counseling is akin to pseudoscience (e.g. Dawes, 1994) may be influenced to some extent by the perceived overemphasis on romanticist notions.

As evidence based practice has become an important aspect of clinical practice for some time now (e.g. Sexton, 2000), an understanding of the factors that influence clinician decision-making is likely to be a helpful goal of counselor education programs. Knowing what impacts treatment decisions can potentially help counselor educators to guide developing clinicians. If, for example, personal biases explain a large portion of the variance in treatment decisions, then training programs would likely need to focus greater attention on supporting clinicians in identifying and correcting related errors.

The goal of this research was to better understand how personal biases and individual experiences affect the decision-making of clinicians. Exploration focused on the extent to which factors such as experience, degree of information obtained

during assessment, gender related bias, and emotional contagion have an impact on this process. There is extant literature to suggest a combination of these variables may affect clinician decision-making, and that appropriate treatment of couples in mutually aggressive relationships may be stymied as a result.

Experience

Past research has demonstrated the clinician's experience overall has a small but reliable effect. Experience as a clinician or simply having more education has been shown to improve overall accuracy of clinical decision-making by as much as 13 % (Spengler et al. 2009). One possible explanation for how and why this might be is that more experienced therapists are better capable of being curious and intent on obtaining relevant information, as well as having an interest in the complexity of the human condition (Jennings & Skovholt, 1999). Additionally, experienced therapists are generally more likely to develop complex case conceptualizations (Kardash & Kivlighan, 1999) as well as demonstrate a sharper focus on relevant contextual factors as opposed to crisis issues (O'Byrne & Goodyear, 1997).

Jennings and Skovholt (1999) found that master clinicians were labeled so in part because of their interest in the complexity of individual experiences. Overall, it may be inferred that more experienced clinicians are more likely to examine the subtle nuances of presenting client information. One aspect of the experience effect that may have influence on decision-making is the clinician's ability to examine relevant contextual information.

Social Context Information

Having more relevant information during initial assessment has been shown to improve clinical decision-making in several older studies (Finlayson & Koocher, 1991; Grove, Zald, Lebow, Snitz, & Nelson, 2000; Hillerbrand & Claiborn, 1990). Relevant social context information (i.e., specific details about the client's background) has been shown to have a positive impact on the likelihood of making an accurate assessment (Hsieh & Kirk, 2003). Context specific information has been shown to have an impact on effectively empathizing with client concerns (Gesn & Ickes, 1999). This research overall seems to suggest that the likelihood of making an accurate decision, either during an assessment or in the context of counseling, is dependent upon the amount of information provided. Clinicians have also been shown to weigh the importance of available information, in that they use both the amount of relevant information to determine clinical decisions as well as the relative importance of each specific piece of information (Davis, Blashfield, & McElroy, 1993).

What specific factors influence the likelihood that the clinician will make an effort to examine relevant contextual information? Lack of experience may have an impact on this process, but personal biases may serve as an impediment as well. Clinician biases relevant to gender also appear to have a substantial influence.

Personal and Gender-Related Biases

Research suggests gender of the client has an impact on decision-making in medicine (Borkhoff, Hawker, Kreder, Glazier, Mahomed, & Wright, 2008) as does race of the client (Green et al. 2007; Stivers & Majid, 2007) despite clinician reports

of impartiality. The more concrete nature of medicine (i.e., you can see cancer, but you can not see schizophrenia) would suggest bias should play a less substantial role. This may indicate the role of bias in decision-making overall is considerable.

Regarding psychology and counseling specifically, evidence exists to suggest gender bias of the counselor plays a role in assessment (Einarsdóttir & Rounds, 2009) and that myriad other forms of personal biases play a role in the decision-making of professional counselors and therapists (Carroll, Rosenberg, & Funke, 1988; Homant & Kennedy, 1985; Kales et al. 2005; Pottick, Kirk, Hsieh, & Tian, 2007). Some of the more common biases in our profession include the ideas that women are more vulnerable and men struggle in appropriately managing and expressing emotions (Vogel, Epting, & Wester, 2003), and that men are more dangerous while women are more passive (Elbogen, Williams, Tomkins, & Scalora, 2001). Current popular treatments specific to male clients, particularly with regard to domestic violence issues, have been criticized as potentially inappropriate, due in part to being influenced by these biases (e.g., Dutton, 2006).

There is literature to support the notion that clinicians conceptualize male and female clients differently, with males being generalized as dominant and aggressive and females being generalized as passive and emotional (Crosby & Sprock, 2004). Additional research has suggested that supporting such behaviors in clients may reduce the likelihood of clients seeking help to begin with (Levant, Wimer, Williams, Smalley, & Noronha, 2009). Of greater importance to this research, there is existing evidence to suggest that clinicians ascribing to more stereotypical views relative to

men are more likely to assign blame to male clients in couples counseling scenarios (Heesacker et al, 1999).

The end result of clinicians favoring personal biases in the decision-making process is that clients receive treatment that is less governed by scholarship than intuition. In the case of gender biases in domestic violence treatment, couples may be subjected to treatments that may be ineffective, but are more preferable to the clinician providing treatment. Personal bias may also leave a clinician inclined to identify one member of the couple as solely responsible, and this approach to treatment will likely do little to engage and motivate both clients to participate in the process.

Personal Biases and Domestic Violence Treatment

The issue of domestic violence is a potential tool for developing a better understanding of the ways in which bias impacts decision-making, as it has been treated in the clinical theater as a one-sided problem despite research to suggest otherwise. Despite the fact that couple based treatments have been shown to be effective (Stith, Rosen, McCollum, & Thomsen, 2004), there appears to exist some degree of reluctance among researchers to investigate couples based treatments, instead focusing greater attention on the notion of male battering (e.g., Miller & Meloy, 2006). In one example, Stith, Rosen, and McCollum (2002) reported that, while developing their model to address concerns related to the treatment of domestic violence that incorporated both partners in the process, the project was met with resistance on behalf of the Institutional Review Board at Virginia Tech, with the

explanation that the notion of couple's treatment for domestic violence is highly controversial.

These positions continue despite older evidence to suggest that domestic violence is a complex issue that may necessitate the involvement of both partners in treatment. For example, general community samples have indicated comparable rates of intimate partner violence for both men and women (Archer, 2002), suggesting that the notion of battering as a solely male problem may be inaccurate. Past research by Feder and Ford (1999) has suggested that psycho educational approaches endorsing the belief that abuse is a culturally learned male behavior are ineffective in retaining male clients or in reducing violence when compared with control methods. More recent research by Stith, Rosen, McCollum, and Thomsen (2004) has suggested that mutually abusive partners are best treated conjointly as opposed to focusing intervention solely on the physically dominant partner. As a result of these inconsistencies between practice and research, recent scholarship has emerged to support the idea that a reconsideration of domestic violence treatment approaches is necessary (Dutton, 2006).

If evidence exists to suggest that couples treatments are effective, what is it that motivates clinicians to advocate for treatments that focus predominantly on one partner (e.g., Pence & Paymar, 1993)? The rationale for this bias becomes more confusing as the one sided stance on the matter suggests that male clients are at fault (e.g., Miller & Melloy, 2006). Assuming this is true, it would serve to reason that male clients need to be motivated to stay in treatment to learn more effective coping skills to manage their aggression. It may be that, for some clinicians, the idea of focusing on the physically dominant partner for their behavior is influenced by an excess of emotional contagion related to the weaker partner. In cases such as this,

clinical decisions may be more greatly influenced by emotion than relevant scholarship. This is not to suggest that empathizing with a female client in an abusive relationship is unnecessary; instead, the focus is on the importance of recognizing when decisions are influenced more by emotional contagion than by sound clinical reasoning.

There is evidence to suggest that couples counseling is an appropriate intervention when there is evidence of mutual aggression. McCollum and Stith (2008) have advocated for the utilization of couples based treatment in resolving intimate partner violence, suggesting that there is strong evidence to support this approach despite public controversy. It may be that emotional contagion has some degree of influence in the decision-making process, resulting in an excess of empathy for the partner that is perceived to be weaker.

Emotional Contagion

Hatfield, Rapson, and Li (2009) define emotional contagion as “the ability of people to ‘feel themselves into’ another’s emotions” (p. 19). Evidence exists to suggest that overall emotion has a detrimental impact on decision-making in general (Ambady & Gray, 2002; Bodenhausen, Sheppard, & Kramer, 1994; Forgas, 1998). The relationship between emotional contagion and clinical acumen may be that an excess of emotional connection (or oneness) with the client (e.g., Stürmer, Snyder, Kropp & Siem, 2006) leads to an increase in emotional responsiveness, which leads to poor clinical decision-making. An excess in emotional connection with the client as a result of emotional contagion may have a negative impact on communicative responsiveness, and subsequent communicative responsiveness can lead to burnout

(Miller, Stiff, & Ellis, 1988). Research has also suggested that the idea of imagining how you would feel as opposed to imagining how the other would feel leads to increased personal distress (Batson, Early, & Salvarini, 1997, as cited in Eklund, 2006).

Statement of the Problem

The purpose of this study is to develop a more comprehensive understanding of how degree of information obtained during assessment, clinician experience, gender biases, and emotional contagion contribute to clinician decision-making using the treatment of couples presenting with domestic violence issues as an assessment tool.

Research Questions

Question 1. To what extent does relevant social context information supportive of a mutual history of aggression influence the likelihood of choosing couples counseling for mutually aggressive couples?

Question 2. To what extent does having more experience influence the likelihood of choosing couples counseling for mutually aggressive couples regardless of social context information?

Question 3. To what extent does having more experience and lower emotional contagion influence the likelihood of choosing couples counseling for mutually aggressive couples regardless of social context information?

Question 4. To what extent does having more experience, lower emotional contagion, and lower gender bias influence the likelihood of choosing couples counseling for mutually aggressive couples regardless of social context information?

Hypotheses

Hypothesis 1. Clinicians provided with more relevant social context information supportive of a history of mutual aggression will be more likely to choose couples counseling for mutually aggressive couples (Appendix A).

Hypothesis 2. Clinicians with more experience will be more likely to choose couples counseling for mutually aggressive couples regardless of social context information (Appendix B).

Hypothesis 3. Clinicians with more experience and lower emotional contagion scores will be more likely to choose couples counseling for mutually aggressive couples regardless of social context information (Appendix C).

Hypothesis 4. Clinicians with more experience, lower emotional contagion scores, and lower gender bias will be more likely to choose couples counseling for mutually aggressive couples regardless of social context information (Appendix D)

Significance of the Study

The field of counseling is generally perceived as one in which the relationship is key and the effects of therapy are engendered by factors such as creating a supportive relationship (e.g., Frank & Frank, 1993), but connection and empathy alone are not sufficient to maintain a profession. The call for evidence-based practice

has been influenced by concerns that the integration between counseling research and counseling practice continues to remain limited despite ever increasing demands for stringency on behalf of governing institutions such as insurance companies (Sexton, 2000). Providing our clients with the best possible services as well as ensuring the longevity of the field are critical, and it will be important to understand what factors serve as impediments to the process of clinical decision-making grounded in scholarship rather than instinct alone.

Domestic violence remains a serious problem in the United States. The etiology of domestic violence in relationships appears to be more complicated than what is described by traditional approaches to treatment (Dutton, 2006), but there is existing evidence to suggest that one of the most important factors to successful treatment in counseling is assurance that all relevant parties are engaged and motivated in the process (Alexander & Sexton, 2003). Even if the basic assumptions of the traditional approach to domestic violence treatment are accurate, it would serve to reason that the aggressive partner would need to be engaged and motivated adequately to ensure compliance with treatment. As such, understanding how bias against male clients (specifically beliefs regarding male's ability to express emotions effectively) in domestic violence scenarios affects clinical decision-making will be of benefit to the field of marriage and family therapy.

Definitions

Battering – refers to a process of repeated intimidation in an effort to control on behalf of one partner in a relationship, typically the male partner (Stith et al, 2004).

Cognitive Empathy – refers to the internal process wherein the individual begins to imagine what it would be like to experience the emotions of another, or “mental perspective taking” (Smith, 2006, p. 3).

Couples Counseling – refers to a treatment model that incorporates both partners in the process of counseling simultaneously with the intention of addressing relational concerns that have contributed to the presenting problem.

Domestic Violence – refers to a process of mutual physical, verbal, and/or emotional aggression and violence between both members of a couple. For the purposes of this study, domestic violence refers to acts of physical aggression and violence.

The Duluth Model – refers to a feminist model, based primarily on the notion that intimate partner violence is the result of male battering, and requires that male participants take part in a separate 26 week psycho education group to address the etiology of their violent actions while female participants are invited to join a support group (Pence & Paymar, 1993).

Emotional Contagion – refers to the internal process wherein the barriers of the *as if* process of empathy described by Rogers (1957) are eliminated, and the individual *catches* the emotions of the other person in their entirety (Hatfield & Rapson, 2000).

Emotional Empathy – refers to the internal process wherein an individual begins to experience the emotions of another (Smith, 2006).

Experience – refers to clinical experience such as years of professional work as a clinician.

Gender-Related Bias – refers to an internal process wherein a clinician makes a decision based on the client’s gender as opposed to past scholarship or other pertinent information to reach a conclusion.

Individual Treatment – refers to a treatment model that has both partners attend treatment separately, with the intention of addressing individual concerns that have contributed to the presenting problem.

Personal Bias – refers to an internal process wherein a clinician makes a decision based on preferential information related to personal experiences or beliefs rather than utilizing relevant presenting information to reach a conclusion.

Social Context – refers to the cumulative information about a client’s background relative to personal and environmental experiences.

Limitations

The following are recognized as potential limitations of the study:

1. There exist inherent difficulties in the assessment of personal biases, which create issues relative to internal validity.
2. The vignettes utilized in this study have minimal psychometric data to support their validity
3. The use of surveys in counseling research typically creates the problem of manifest variables that are subject to measurement error (Heppner, Wampold, & Kivlighan, 2007).

4. The use of web-based assessment, while improving the study's overall design by improving anonymity, makes it difficult to assure validity of presented scores.

Chapter 2

Review of the Literature

This chapter will review literature related to factors that influence decision making in counselors. The findings of this literature review will suggest that when a clinician has less relevant social context information, less experience, is biased against male clients, and is susceptible to emotional contagion, there exists a greater likelihood that their decision-making will be more informed by emotion than by scholarship, particularly where domestic violence treatment is concerned.

The Experience Effect

Clinician experience has a small but reliable effect on the efficacy of clinical practice and judgment. A meta analysis of 75 separate articles detailing clinician judgment about diagnosis, prognosis, and treatment indicated that there was a small but reliable effect related to experience, both education and work-related. This suggested that experience as a clinician or simply having more education helped to improve overall accuracy in clinical decision-making by as much as 13 % (Spengler et al, 2009). This piece was in contrast to past studies suggesting that the effects of experience were limited to confidence in assessment. In assessing case conceptualization with regard to diagnostic accuracy between 15 novice and 17 experienced practitioners, the only noted difference was that experts were able to identify themselves as more confident and knowledgeable (Hillerbrand & Claiborn, 1990).

The more current research track, however, seems to suggest that while the effect of experience in determining clinical efficacy might indeed be difficult to detect, it exists in myriad forms. Brammer (2002) had 138 psychologists use a hypothetical case study to assess diagnostic accuracy and found that experience and education both had a significant impact on precision. This study utilized an artificial intelligence (AI) computer program to provide answers to questions asked by participants. The only variables in this study associated with diagnostic accuracy were years of training ($r = .42, p < .01$), years of experience ($r = .33, p < .05$), and the number of questions asked of the AI program during assessment ($r = .57, p < .01$). More training led to asking less redundant and distracting questions, suggesting that experienced clinicians are more capable of streamlining their approach. The supported hypothesis was that as training increased, the number of diagnostic questions increased, which improved diagnostic accuracy (Brammer, 2002).

An explanation of how and why more experienced clinicians are more capable of achieving diagnostic accuracy may exist in analysis of experts in the field, specifically with regard to their ability to examine relevant nuances and details of each particular client. Jennings and Skovholt (1999) found that to effectively understand counselor expertise, it may be beneficial to look beyond cognitive abilities and examine some of their relational abilities. In qualitative interviews with 10 peer-identified master therapists (Jennings & Skovholt, 1999), some of the more obvious cognitive characteristics were relevant to the therapist's ability to be curious and intent on obtaining relevant information, and having an interest in the complexity of the human condition. They had strong relationship skills, and were intent on using

these in the development of a therapeutic alliance. Overall, good therapists refrained from simple categorization, but were intent on understanding the subjective experiences of the individuals they were treating. The authors outlined this concept in the following excerpt:

A central tenet in this literature involves an embracing of complexity and reflecting on this complexity in order to grow professionally. The underlying concern here is how to use experience to increase competence and the move toward expertise. The alternative is 'misuse of experience,' where the practitioner is not impacted by it but just routinely repeats the same process over and over again. (p. 9)

The idea of expertise as a function of experience by way of streamlining the process of assessment (i.e., focusing more on specifics of the individual that relate to relevant diagnostic concerns as opposed to surface level or unrelated issues) has been supported in other literature as well. Looking at differences in case conceptualization relative to experience, O'Byrne and Goodyear (1997) presented both a novice ($n = 14$) and a more experienced group of clinicians ($n = 14$) with a short description of a presenting case and then asked them to follow up with relevant questions. The biggest difference in these cases was that experts were more likely to ask more questions, and were less focused on crisis issues relative to the client's presenting problem. The sample size for this particular study was small, and the study itself is dated, but the findings suggest a strong effect relative to experience, with an average of only 15 questions for the novice group and 23 for the more experienced clinicians (O'Byrne & Goodyear, 1997).

It should be noted that while research suggests a more in-depth assessment by experienced clinicians is important, this does not necessarily indicate a lengthier assessment process. Mayfield, Kardash, and Kivlighan (1999) presented clinicians (n

= 9) with a hypothetical case, after which they were asked to map out some of the more important issues of the presenting individual relative to case conceptualization. The findings indicated that more experienced counselors were more capable of reading transcripts and sorting statements in approximately half the time that it took the novice group ($p < .05$), and were less focused on surface level details. Expert's concept maps were also more integrated and interrelated than their novice counterparts, suggesting a more streamlined and integrative approach on behalf of experts (Mayfield, Kardash, & Kivlighan, 1999). This supports the idea that more competent clinicians focus on subtle nuances of the presenting client that are important to diagnosis and refrain from investigation of irrelevant information.

Missing Information and the Impact on Treatment

Research supports the contention that more appropriate information, particularly information relative to the client's social context, leads to more accurate treatment decisions. Assessments were far more consistent among clinicians when more specific information was presented as opposed to ambiguous information in a study reviewing the likelihood of obtaining consensus among 296 psychologists presented with vignettes depicting possible child abuse (Finlayson & Koocher, 1991). The previously mentioned research by Hillerbrand and Claiborn (1990) assessing diagnostic accuracy between novice and experienced practitioners found that as the information presented in cases became less consistent with identifiable diagnoses, clinician's conceptualizations became less efficient. Ruscio (2000) has also suggested that clinician's ability to predict is typically worse than statistical equations, but that

clinicians tend to be more confident in their decisions. This study of 112 student's predictions of antisocial tendencies in an individual based on presented case information indicated that confidence in predictions was far higher than accuracy, and there were significant differences in accuracy based on the amount of clinical information included (Ruscio, 2000).

Using a meta analysis comparing 136 studies, it was found that clinicians are less capable of providing accurate clinical predictions than mechanical prediction methods (Grove, Zald, Lebow, Snitz, & Nelson, 2000). The studies included in this analysis examined clinician attempts at predicting client behaviors to the use of algorithms and statistical procedures. The results indicated that mechanical prediction is at least as accurate (if not, in many cases, more accurate) in predicting a multitude of client behaviors. A handful of exceptions to this rule occurred, however, in cases where clinicians were offered more information than the mechanical prediction methods (Grove et al).

The above contentions have also been supported by the research relative to structured assessment methods, as these serve to decrease the likelihood of missing important factual information relative to context issues of the client. Miller, Dasher, Collins, Griffiths, and Brown (2001) found that, where initial assessment methods are concerned, clinicians are far more accurate in using structured assessment methods than unstructured assessment methods. This study compared traditional diagnostic assessment to computer assisted methods, and found that the traditional assessments fared much worse in achieving accuracy. Three clinicians provided diagnoses for 56 separate patients in an inpatient setting, with one of the clinicians using a traditional

unstructured approach and the other two using more formal computer assessment procedures. Diagnostic accuracy for the group using the traditional unstructured method was only 54%, while accuracy for the two structured assessments was considerably higher (86% for each). The authors suggest that part of the reason for these inaccuracies was that clinicians taking part in traditional assessment methods only examined about half (53%) of the key criteria, and subsequently failed to examine all possible diagnoses (Miller et al, 2001). This finding was similar to that of Shear et al (2000), where it was found that the differences among 164 inpatient intake assessments completed by social workers (under the supervision of a psychiatrist) when compared with structured interviews at a later date were significantly different from those obtained during the structured interviews (Shear et al, 2000).

Mistakes relative to assessment made early on in treatment can lead to serious problems both with client retention as well as the appropriateness of treatment. A much older study reviewing data of 533 clients that had terminated counseling at a university center after 1-3 visits found that clients were likely to terminate after only one meeting if they felt the counselor had done a poor job of understanding and recognizing their presenting problem (Epperson, Bushway, & Warman, 1983). Another finding was that when problem recognition was lacking, more experienced counselors had higher rates of premature termination but when problem recognition was acceptable (according to the client), less experienced clinicians had overall higher rates of premature termination.

Hays, McLeod, and Prosek (2009) found additional support for the importance of accurate information in assessment as well as the idea that personal

biases can influence decisions. This was a qualitative piece that looked at the different diagnoses that 41 counselors assigned to a client described in a case summary, and then interviewed clinicians afterwards to discuss how and why they reached the conclusions that they did. In addition to the fact that the counselor's diagnoses varied greatly, this was largely attributed (during interviews) to perceptions of information variance (in that clinicians felt the information presented limited their ability to accurately diagnose), observation variance (in that the clinicians felt their perceptions of the presented information were likely to vary; Interestingly, a majority of participants reported feeling uncertain about their diagnoses, and many stated that they would prefer to defer this decision to a psychiatrist or a psychologist, and criterion variance (many reported feeling that different clinicians use different criteria to diagnose). There was also a noted availability bias in that less than half of the sample used DSM criteria to arrive at diagnostic decisions, while more than half alluded to diagnostic decisions based on personal experiences. In interviews, counselors indicated feeling that their professional interests (i.e., substance abuse versus family) did impact their decisions (Hays, McLeod, & Prosek, 2009).

One of the more important pieces of information necessary in conducting an assessment of a client is existing social context. Hsieh and Kirk (2003) argued that social context is a necessary component in understanding a diagnosis (in this case, conduct disorder) and examined the likelihood that clinicians would take this factor into account when making a diagnosis. The hypothesis that psychiatrists would make different judgments about the existence of a mental disorder based on the social context of the client was supported, using data collected from 483 psychiatrists

offering opinions regarding hypothetical vignettes. Differing opinions were evident among groups of clinicians that received different information relative to social context, with ANOVA differences among rating suggesting that the effect of context was significant [$F(2, 468) \frac{1}{4} 109.8, p < .001$] (Hsieh & Kirk, 2003).

This is not to suggest that more information is always better, but that the information itself needs to be related to the process of assessment. By studying clinician's ability to accurately assign a diagnosis of personality disorder and the case conceptualization method used to reach conclusions, additional research (Davis, Blashfield, & McElroy, 1993) has suggested that increased information is not sufficient alone, but that the quality of this information is equally relevant. In this case, clinicians were most likely to use the *weighted model* in which they used both the amount of relevant pieces of information to determine clinical decisions as well as the relative importance of each specific piece of information (Davis, Blashfield, & McElroy, 1993).

Research has supported the idea that empathy is dependent upon context specific information as well. Gesn and Ickes (1999) examined accuracy of empathy as a function of context specific cues, specifically verbal versus non-verbal content. Seventy-two undergraduate students were asked to identify the emotional content of taped therapy sessions, either in their specific order (the entire session from start to finish) or in randomized 15-second increments. The results of this study indicated that empathic accuracy of participants was at its highest when participants had more verbal information as opposed to non-verbal information. Empathic accuracy was also affected by the cumulative information presented to the participant, as those with

a disrupted perception of the client-therapist interaction were less successful in empathizing with the client's concerns. Overall, the researchers determined that it was necessary to have cumulative contextual knowledge about the individual to better empathize with the client overall.

The Influence of Personal Biases

Much past research has suggested that decision-making of clinicians is strongly influenced by personal values and biases, particularly those related to experience and training. An older study by Carroll, Rosenberg, and Funke (1988) found that alcohol counselors were more likely than their mental health counterparts to rate clients as intoxicated when they were in fact sober. Differences have also been noted between psychologists and psychiatrists in their likelihood of agreeing with an insanity plea in a hypothetical situation where they would testify as an expert witness; and identification as a liberal or a conservative was strongly correlated with clinician decisions. The extent to which an expert witness has had experience testifying either for the defense of an insanity plea case had an impact on the likelihood that they would be in favor of an insanity plea (Homant & Kennedy, 1985).

A reliance on personal biases may result in a tendency toward a confirmatory bias in evaluation. Research conducted by Owen (2008) has suggested that counselors conducting intake assessments are far more likely to attempt to confirm their own hypotheses rather than attempting to disconfirm their hypotheses. This study utilized multilevel modeling, and analyzed the frequency of disconfirmatory versus confirmatory questions of counseling students ($n = 97$) presented with a fictional case

study. The resulting analysis suggested that approximately 65% of questions generated were confirmatory in nature. A separate assessment of intake procedures (Strohmer, Shivy & Chiodo, 1990) found that counselors looking back on reviewed client information were more likely to remember information consistent with the hypothesis presented, even when the presented client information contained more disconfirmatory information relative to the presented hypothesis; described as a process of selective memory. This confirmatory bias was also found in a second study where memory was not an issue. Strohmer, Shivy and Chiodo, (1990) discuss these findings in the following excerpt:

These results suggest a troubling scenario. Counselors, regardless of the actual information that they gather in counseling, may tend to recall preferentially more confirmatory than disconfirmatory information, thus leading to the confirmation of a particular hypothesis. Such results would be contrary to the majority of the observational evidence. In addition, counselor certainty may be inappropriately increased by the biased recall of confirmatory information. (p. 468)

Similar findings have been supported in additional research by Haverkamp (1993) which suggests that counselors demonstrate a confirmatory bias where self-generated hypotheses are concerned, but not where client generated hypotheses are concerned. In this analysis of 65 counseling trainees viewing videotapes of scripted counseling scenarios, it was found that the trainees' questions were approximately 64% confirmatory in nature (Haverkamp, 1993).

In examining counselor hypothesis formulation during intake assessment, it was found that when presented with referral information that was inconsistent with the client's presentation, counselors were more likely to develop their own hypothesis than to accept referral information. Seventy-two psychology doctoral students were

asked to provide assessment hypotheses about a mock counseling vignette, and participants were significantly more likely to develop their own hypothesis and ask confirmatory questions when the referral information was inconsistent with the client's presentation (Pfeiffer, Whelan, & Martin, 2000).

Research exists to suggest that these bias-related errors occur in the medical field as well. An assessment of 100 psychiatrist's decision-making relative to antipsychotic medication found that physician age was a better predictor than patient variables of whether or not a psychiatrist would prescribe a first-generation medication to a psychotic patient as opposed to the (presumably) more favorable second generation meds. The authors of this study suggest that decision-making is more influenced by physician variables (e.g., comfort, experience, and familiarity) than patient variables, which could often times result in inappropriate treatment for patients (Hamann et al, 2004).

Kales et al (2005) reported similar findings in assessing diagnostic trends among 329 psychiatrists. This study found that race and gender of the client were *not* related to clinical decision-making in psychiatrists. What they did find, however, was that both the clinicians' training as well as their race were associated with differences in treatment decisions. In a similar study of 1,401 psychiatrists, social workers, and psychologist's judgment of mental disorders, Pottick, Kirk, Hsieh, and Tian (2007) found that there were distinct differences in diagnosis among clinicians depending on age, theoretical orientation, and professional background.

Bias related errors can also occur in the general public. Levy and Hershey (2008) found that in situations where it is unclear exactly what method of treatment

would be most effective, people distort the facts in front of them to suit their own values and beliefs. When participants completing a web-based assessment ($n = 182$) were given a hypothetical situation in which they had a disease that may very likely be resistant to treatment, those that were motivated to receive treatment were more likely to alter their perceptions about the treatment's efficacy; if they wanted treatment, they were more likely to believe it would work, despite the fact that they were told it had a low probability of success. This was only in *close call* settings, where it was difficult to determine which was the best possible option (Levy & Hershey, 2008).

The biases of individual clinicians are also related to institutional practices which take precedence over best treatment practices. Broom, Adams, and Tovey (2009) interviewed 13 physicians and 12 nurses regarding their perceptions of evidence based medicine. This was an in-depth qualitative study, which found that professional hierarchies as well as the overall organizational structure of the hospital had a significant bearing on clinician's interpretations of evidence-based methods (specifically relative to the practice of oncology). The bias in this case had less to do with the individual and more to do with the hospital's standard operating procedure (Broom, Adams, & Tovey, 2009).

Biases may also be more evident in clinical decision-making when information decreases or when time is a greater issue. Finucane, Alhakami, Slovic, and Johnson (2000) have suggested that affect and personal beliefs contribute significantly to decision-making and judgment. Forty-four undergraduate psychology students were asked to make general decisions about the ethical constraints of various

behaviors in a questionnaire (via computer). Time was limited in the process of decision-making for study participants. Increasing time pressure tended to increase the use of affective heuristics, during which participants would consult their “affective pool... containing all the positive and negative tags associated with the representations consciously or unconsciously” (p. 3). Faced with theoretical decisions about the risks and benefits of activities to society as a whole, participants in the time pressure condition were less likely to implement analytical thought and more likely to implement affective heuristics. The second study in the article provided support for the idea that manipulating information on one specific affective judgment can have an impact on the evaluation of another judgment (Finucane et al, 2000).

Gender Biases in Case Conceptualization

There is myriad literature to suggest that clinicians conceptualize male and female clients differently, with males being generalized as dominant and aggressive and females being generalized as passive and emotional. Becker and Lamb (1994) found that, in assessing diagnostic accuracy relative to gender, females were more likely to be assigned a borderline diagnosis than males. A sample of 1,080 clinicians (psychologists, psychiatrists, and social workers) were asked to assign a diagnosis to a client described in a vignette as having equal diagnostic criteria for both borderline personality disorder and posttraumatic stress disorder. Male cases were also far more likely to receive a diagnosis of antisocial personality disorder than female clients.

Female clinicians were more likely overall to assign a diagnosis of PTSD regardless of client sex (Becker & Lamb, 1994).

Crosby and Sprock (2004) found comparable results utilizing a similar method. One hundred sixty seven psychologists were asked to assign a diagnosis to a client described in a vignette that met the diagnostic criteria for antisocial personality disorder, with sex of the client being altered as an experimental manipulation. Female clients were far more likely to receive a borderline personality diagnosis [$\chi^2 (1, n = 16) = 9.0, p < .003$], while men were more likely to receive an antisocial personality diagnosis (though the difference was not statistically significant). Women were also more likely to be labeled as histrionic. Clinician sex did not produce any significant differences in diagnosis for this study, though clinicians in general were reported to be more confident in the diagnoses assigned to the male version of the case (Crosby & Sprock, 2004).

Elbogen, Williams, Tomkins, and Scalora (2001) examined gender influences of both the client and the clinician and how this impacts case conceptualization specific to prediction of violent behaviors in psychiatric facilities. Clinicians ($n = 81$) were more likely to predict that male clients would be more violent than female clients, but this gap was more pronounced for female clinicians than male clinicians. Differences in ratings among male clinicians alone were not significant. The analysis seems to suggest that clinicians in this study weighted cues of potential future aggression differently with the opposite sex, and that this difference was more pronounced for females [$F (1,408) = 12.090, MSE = 6.832, p < .001$].

Seem and Johnson (1998) used an analogue study that examined gender role biases in counselor trainees ($n = 210$) related to both male and female clients. In reviewing case descriptions of clients struggling with male or female gender role conflicts (be a stay at home house-husband versus getting a job; and having children versus not having children) it was found that bias existed regarding the gender roles of both male and female clients. Women choosing non-traditional careers did not appear to elicit biases, but a woman choosing not to have children was found to be problematic among female clinicians. Both male and female clinicians expressed some degree of bias when male clients opted not to take on the role of financial provider in favor of staying at home (Seem & Johnson, 1998).

Research has provided support for the idea that some clinicians may identify men as hypoemotional (typically unable to express feelings) and women as hyperemotional (typically overpowered by their feelings), and that these stereotypes can have a negative impact on the counseling process. Heesacker, Wester, Vogel, Wentzel, Mejia-Millan, and Goodholm (1999), in developing a specific measure of individually held beliefs about men's emotional behaviors (the BAME, Beliefs About Men's Emotions scale), found that participants ($n = 134$) with higher BAME scores – suggesting that they held to more stereotypical beliefs about the capacity for emotional expression of men, such as the ideas that men do not feel emotions as deeply or that they are afraid of their feelings – were more likely to attribute blame to male clients as opposed to female clients. When watching taped vignettes of couples participating in couples counseling, participants with higher BAME scores were more

likely to blame the male client for relationship conflict, regardless of the participant's gender (Heesacker et al. 1999).

Additional research has supported the idea that male clinicians conceptualize cases differently from female clinicians, and that the client gender has an impact on this process. Vogel, Epting, and Wester (2003) conducted a post-hoc qualitative analysis of 59 intake summary reports conducted at a university counseling center. Though overall differences in conceptualization of male versus female clients were limited, it was apparent that in conceptualizations of female clients, there was greater emphasis on the clinician's behalf to focus on client vulnerability and degree of assertiveness. For male clients, the focus was on themes of difficulty in emotional expression as well as the degree to which the client expressed a sense of connection with others. Female counselors were more likely to focus on empowerment issues and strength-based client factors. Male counselors were more likely to confront issues and suggest change for clients facing gender stereotype issues. It should also be noted that these differences were more pronounced when counselors were paired with members of the opposite sex. For example, female counselors were more likely to indicate feeling stuck with male clients, but were also more likely to focus on issues of empowerment with female clients (Vogel, Epting, & Wester, 2003).

Perrin, Heesacker, and Shrivastav (2008) found similar support for the idea that client gender biases assessment. Clinicians ($n = 248$) were asked to listen to audio taped segments of counseling sessions, with one of four treatment conditions possible: the client was male, the client was female, the client was male but the voice was altered by computer to make him sound female, or the client was female but the

voice was altered by computer to make her sound male. After listening to these taped segments, participants were asked to fill out the BAME and the Observer Alexithymia Scale, which is intended to assess the observer's ratings of the client's difficulty in recognizing and processing emotions. The outcomes of this study suggested that, while biases among clinicians were evident based on their BAME data, these stereotypes did not have an impact on assessment of emotionality (Perrin, Heesacker, & Shrivastav, 2008).

Research supports that for men, ascribing to these stereotypes can be problematic. Shepard's 2002 study provided support for the idea that culturally imposed stereotypes relative to masculinity can be emotionally detrimental to men. This study defined gender role conflict as a fear of femininity, using the gender role conflict scale as an assessment tool among a sample of male college students ($n = 111$). Depressive symptoms were assessed using the Beck Depression Inventory. The results indicated that there was indeed a relationship between restrictive emotionality and depressive symptoms related to a negative state of mind, specifically self dislike, feelings of failure, guilt, and pessimism. This pattern of depressive symptoms matched up with a similar pattern of symptoms described by Hill et al (1986, as cited in Shepard, 2002), which was described as "Feelings of Unworthiness" (p. 6), suggesting that this particular pattern is representative of an unrealized set of self-expectations. This could, in some way, be related to research regarding self-esteem and the detrimental consequences of high self-esteem (e.g., Baumeister, Smart, & Boden, 2006), which suggests that excessively high self-expectations result in ego conflict.

Hayes and Mehalick (2000) found similar support for the notion that forcing such beliefs on male clients is detrimental. Using the gender role conflict scale to examine male levels of gender role conflict in male university students seeking counseling ($n = 99$), it was found that gender role conflict was an adequate predictor of psychological distress, which was measured using the Brief Symptom Inventory. Increased gender role conflict was associated with social discomfort, hostility, and some obsessive compulsive behaviors (Hayes & Mahalik, 2000). Additional research has suggested that supporting such behaviors in clients may reduce the likelihood of seeking help to begin with (Levant, Wimer, Williams, Smalley, & Noronha, 2009). This study was more specifically examining health-risk behaviors related to masculinity conformity (and found that increased gender role conflict was related to increased health-risk behaviors; interestingly, masculinity adherence was not related to an increase in health risk behaviors), but it was also found that conformity to masculine ideals was related to a negative attitude toward seeking psychological help (Levant et al. 2009). As such, it would serve to reason that counselors need to be sensitive to gender issues specific to males, as these may prevent them from accessing help or support in the first place.

Criticisms of Domestic Violence Treatment

Some have argued that adherence to male stereotypes on behalf of clinicians leads to improper treatment, with domestic violence offenders being a prime example. Dutton (2006) in particular has argued that traditional models of intervention that fail to engage male clients by focusing on stereotypical male

behaviors (such as the approaches of psycho education and feminism endorsed in the Duluth model, which supports the idea that abuse is related to cultural support of male-privilege) serve to damage therapeutic rapport by only providing supportive treatment to female clients. In his book chapter, Dutton (2006) argues that counselor approaches adhering to more “Romanticist” (e.g., Garb, 2005, p. 82) beliefs about male aggression stereotypes are counter to what most of the current research suggests.

The notion of attitudinal acceptance of male violence has been disputed by past research, such as the idea that men are more often violent in relationships than women (they are not, according to Archer, 2000), or that the notion of male privilege is supported by a vast cultural belief that male to female spousal abuse is acceptable in the eyes of most men (only about 3% of the male population in the U.S. adhere to this belief, according to Simon et al, 2001). A survey of 5,238 adults suggested that both men and women report greater overall tolerance of women hitting men than men hitting women (Simon et al 2001).

Past research has provided support for the idea that intimate partner violence is not a one-sided problem, and that women are capable of malice in relationships as well. In a meta-analytic review of 581 studies, the analysis indicated comparable rates of intimate partner violence for men and women, as the reviewed studies suggested that men and women were both likely to engage in acts of intimate partner violence (Archer, 2002). Using survey responses from 104 self-identified lesbian women, it was found that women in lesbian relationships report equally high levels of abuse and aggression (approximately three fourths of the sample reported previous aggression

by a female partner) with a greater likelihood of describing aggression as mutual among female partners and self-defense with previous male partners (Lie, Schilit, Bush, Montagne, & Reyes, 1991).

The Duluth model remains as one of the more popular models of treating abusive male and female partners, and according to Dutton (2006), it is counter to the basics of effective counseling, in that it requires clinicians to go against the principles of engagement and motivation in favor of confrontation and shaming. The model is based primarily on the notion that intimate partner violence is the result of male battering, and requires that male participants take part in a separate 26 week psycho education group to address the etiology of their violent actions while female participants are invited to join a support group (Pence & Paymar, 1993). Despite evidence suggesting that psycho educational feminist approaches endorsing the belief that abuse is a culturally learned behavior are ineffective in retaining male clients or in reducing violence when compared with control methods (e.g., Feder & Ford, 1999 as cited in Dutton, 2006), the Duluth method is among the more popular forms of treatment for abusive male partners. It is the “most prominent type of clinical intervention with batterers” (Babcock, Green, & Robie, 2004, p. 1026), despite the fact that other couples-based treatments have also proven effective in reducing recidivism (Stith, Rosen, McCollum, & Thomsen, 2004).

Stith et al (2004) describe battering as a process of repeated intimidation in an effort to control on behalf of the male partner, which is likely to fit with the majority of traditional feminist approaches (e.g., Pence & Paymar). These cases suggest that a couples approach to treatment is not only unwise but potentially very dangerous, and

it should be made clear that the intention of this literature review is not to advocate for altering treatment in cases where battering is evident. There is evidence to suggest, however, that couples counseling is an appropriate intervention when there is evidence of mutual aggression. McCollum and Stith (2008) have advocated for the utilization of couples based treatment in resolving intimate partner violence, suggesting that there is strong evidence to support this approach despite public controversy. Stith et al (2004) tested the effectiveness of a joint couples approach to treating domestic violence, with 42 couples being assigned to either a conjoint couples model (a combination of group and couples counseling) or individual treatment (couples worked with a co-therapy team). The findings indicated that men participating in the couples based treatment were substantially less likely to repeat violent behaviors, as indicated by reports of recidivism at 25% for the couples based treatment and 43% for the individual couple condition at a 6-month follow-up.

Decision-Making and Emotion

Much research has been conducted to suggest that overall affect and emotion have a bearing on the outcomes of decision-making. Bodenhausen, Sheppard, and Kramer (1994), based on previous research, suggested that there exists a possibility that basic emotions such as sadness and anger may have varying effects on decision-making. University student participants were asked to make a judgment about a case (a written vignette) detailing a fellow student engaging in some form of misconduct, for which they were to determine guilt or innocence. Prior to reading these descriptions, students were asked to recall a memory of an incident that made them

particularly angry or one that made them particularly sad. Several of the written vignettes detailed a Hispanic student engaging in misconduct linked to common stereotypes relative to Latinos (Bodenhauser, 1990, as cited in Bodenhausen, Sheppard, & Kramer, 1994), with the assumption being that those participants asked to recall incidents that activated anger would be more likely to access commonly held stereotypes. Not surprisingly, angry participants were far more likely to access this particular stereotype as evidenced by an increased likelihood of assigning a guilt rating than sad participants (Bodenhausen, Sheppard, & Kramer, 1994),

Research has suggested that emotions in general can lead to misjudgments. Forgas (1998) hypothesized that an increase in happiness would lead to an increase in the likelihood of making a fundamental attribution error (FAE), which is an error based on over valuing dispositional as opposed to situational factors. Participants in this study were first asked to complete a mood manipulation exercise, during which they took part in a sentence completion exercise and were given either positive feedback (happiness condition) or negative feedback (sadness condition). Following this manipulation, participants read an essay completed by a student outlining a position on a current social issue (either clearly in support of or opposition to nuclear testing) that they were told had either chosen to advocate this position or had been forced to advocate for this position, after which they were asked to give an assessment of their beliefs relative to this student (i.e., likeable vs. unlikeable, intelligent vs. unintelligent) as well as their opinion of the student's position on the topic being debated. Not surprisingly, it was found that mood had a significant outcome on perceptions of the author, but only in cases where the author argued for

the unpopular opinion of pro-nuclear testing. The results also confirmed that those in the happiness condition as opposed to the sadness condition were more likely to commit FAE, as different attitudes about author's opinions were evident even when author's positions had been coerced (Forgas, 1998).

Sadness appears to have detrimental consequences as well, particularly where the accuracy of social judgments is concerned. Ambady and Gray (2002), in a similar study to the aforementioned piece by Forgas (1998), examined the demonstrated biases in ratings of teacher effectiveness as influenced by current affect using a series of experiments. Participating students were first asked to watch a short clip of a stand up comedian (happiness condition) or a short clip of an emotional scene from a sad movie (sadness condition). Following this manipulation, students were shown short clips of teaching segments from actual university professors and were asked to assign ratings for their effectiveness. These results were compared with actual effectiveness rating scores obtained by each professor's student evaluations for the semester during which the taped segment was recorded. Students in the sadness condition were far less accurate in their perceptions of teacher effectiveness than students in the happiness condition (Ambady & Gray, 2002).

Emotional Contagion and Clinical Decision-Making

It should be noted that the construct of emotional contagion is fundamentally different (but related conceptually) to empathy. Rogers (1957) conceptualized empathy as one of the basic tenets of effective therapy. The process is summarized

in the following excerpt from his seminal article on the necessary conditions for therapeutic change:

To sense the client's private world as if it were your own, but without ever losing the 'as if' quality – this is empathy, and this seems essential to therapy. To sense the client's anger, fear, or confusion as if it were your own, yet without your own anger, fear, or confusion getting bound up in it. (p. 243)

More recent research on Roger's construct suggests that there exist distinct subsets of empathy, specifically emotional and cognitive empathy. Cognitive empathy is a more emotionally detached process whereby the individual makes an effort to simply understand the basics of the emotional experience of another. Emotional empathy occurs when an individual begins to experience the emotions of another (Smith, 2006). Emotional contagion seems to occur when the barriers of the *as if* process of empathy described by Rogers (1957) are eliminated, and the individual *catches* the emotions of the other person in their entirety. Hatfield, Rapson, and Li (2009) define the process as “the ability of people to ‘feel themselves into’ another’s emotions” (p. 19). These constructs may overlap conceptually, but there is evidence to suggest that they are uniquely different. Doherty (1997) suggested that, while it would be expected that there is some correlation between the two, the primary distinction between emotional contagion and basic empathy rests with the individual’s ability to differentiate between the psychological attributes of the self and the other. The correlation between empathy and emotional contagion has been found to be moderate in some research ($r = .47$ between a measure of empathic tendencies and a separate measure of emotional contagion; Doherty, 1997) but very low among direct care workers in psychiatric hospital settings in older research ($r = .08$; Miller, Stiff, & Ellis, 1988). Five specific subsets of potential emotions that

individuals may be susceptible to have been identified in the development of the Emotional Contagion Scale: Love, Happiness, Fear, Anger, and Sadness (Doherty).

Empathy is a necessary condition of therapy, but emotional concern for the client becomes inappropriate when the emotions felt are not grounded in objectivity. An excess of emotional connection (or oneness) with the client (e.g., Stürmer, Snyder, Kropp & Siem, 2006), may lead to an increase in emotional responsiveness, which leads to poor clinical decision-making. An older study conducted by Miller, Stiff, and Ellis (1988) had staff at a psychiatric hospital ($n = 417$) assessed via questionnaire with regard to their empathic concern for patients, emotional contagion (i.e., the likelihood of experiencing the emotions of a client), and overall burnout. Among the identified findings of this study was the fact that individuals identified as direct care staff (as opposed to support staff) reported lower levels of emotional contagion, suggesting that those with more frequent patient contact were more likely to implement emotional distance. More importantly, the authors suggest that there exists an indirect relationship between emotional contagion and the poor job performance associated with burnout. They found that overall empathy for patients led to an increase in communicative responsiveness (the ability to listen and effectively communicate with clients), but that overall emotional contagion had a negative impact on communicative responsiveness, and subsequent communicative responsiveness led to burnout (Miller et al. 1988).

Past research has supported the idea that the phenomenon of emotional contagion is relatively easy to establish in practice, suggesting that it may occur with relative ease during the process of counseling. Friedman and Riggio (1981) paired

groups of individuals according to two specific categorizations: expressives (those who had high scores on the Affective Communication Test [ACT], which measures the individual's ability to influence others by way of expressiveness; $n = 27$) and non-expressives (those with lower scores on the ACT; $n = 54$). Each pair was then directed to simply sit in front of each other for a period of two minutes in complete silence, with the expectation that the expressive individuals would have an impact on the emotions of the non-expressive individuals based on non-verbal cues alone. Individuals were asked to complete an assessment of mood (e.g., a short questionnaire examining factors such as boredom, anxiety, and anger), and results suggested that the moods of the non-expressives were more significantly different at the end of the two minute period than the expressives, and that their moods more closely resembled those of the expressives during post-test assessment (Friedman & Riggio, 1981).

More recent research has strengthened the notion that emotional contagion can significantly impact overall attitude and performance. Barsade (2002) examined the effects of emotional contagion in the process of group work using a sample of undergraduate students ($n = 94$) completing a negotiation exercise, with findings supporting the idea that the emotion of one individual has a significant impact on both group process as well as attitudes of group members. The experiment utilized laboratory group settings where emotional contagion was stimulated using a confederate. Emotional contagion was measured via self-report as well as observation. The findings suggested that when the emotion of contagion was more

positive (in that the confederate was intending to create a more positive atmosphere among participants), cooperation among members increased (Barsade, 2002).

The influence of emotional contagion is evident in specific decision-making as well. Howard and Gengler (2001) found that, where rating of a product was concerned, emotional contagion had an impact on the process. In two separate studies, participants were asked to evaluate a new product (a designer Russian storage box) that they had never seen before. The manipulation in this case was the behavior of the person conducting the study (the sender), which was intended to convey happiness by way of smiling and “facial and bodily movements typical of happy senders.” (Howard & Gengler, p. 196). The resulting analysis suggested that rating of the product was significantly affected by the extent to which participants were positively affected by the sender, suggesting that susceptibility to emotional contagion had a significant impact on product rating (Howard & Gengler).

Studies of emotional contagion in the workplace have found that employer’s attitudes could significantly affect those of their staff if these employees had a higher susceptibility to emotional contagion (Johnson, 2008). Sixteen public school principals completed measures of affect at work while 112 of their teachers completed the same measures as well as a measure of emotional contagion. The resulting analysis suggested that job satisfaction was attributed less to the job itself and more to the emotional attitude of the supervisor, as the relationship between teacher and principal affect increased as teacher susceptibility to emotional contagion increased (Johnson, 2008).

There appear to be a variety of factors that influence susceptibility to emotional contagion. Reward dependence (a characteristic associated with being hard working and tenacious) was significantly related to emotional contagion susceptibility in assessing basic aspects of character and their relationship to emotional contagion in 423 Swedish college students (Lundqvist, 2008). Additional research has suggested that there exist gender differences with regard to the likelihood of emotional contagion. Using the Emotional Contagion Scale – a thirty-eight item self-report instrument that assesses the individual’s susceptibility to positive and negative emotions – it was found that women demonstrated a far greater likelihood of experiencing emotional contagion. In general, women were more susceptible than their male counterparts to all of the emotional contagion subscale measures with the exception of anger (Doherty, Orimoto, Singelis, Hatfield, & Hebb, 1995).

Summary

Experienced clinicians are more effective in that they are able to avoid emotional contagion biases by attempting to understand the complexity of each individual client’s experience (Jennings & Skovholt, 1999; Kardash, & Kivlighan, 1999). Individuals who are more susceptible to emotional contagion are more likely to access personal biases in the process of decision-making (Stürmer, Snyder, Kropp & Siem, 2006). When less information is present, biases become more problematic in the process of decision-making (Levy & Hershey, 2008). Strong biases that male clients are more aggressive and female clients are more emotional may influence the

likelihood of selecting a treatment that includes both partners. When a clinician has less relevant social context information, less experience, is biased against male clients' emotional capabilities, and is susceptible to emotional contagion, there exists a greater likelihood that their decision-making will be more informed by emotion than by scholarship, particularly where domestic violence treatment is concerned.

Chapter 3

Methodology

This was conducted as an analogue study, during which participants completed a series of instruments in response to a presented counseling vignette. The primary intention of this research was to develop a better understanding of what specific factors have an effect on counselor decision making; specifically, the extent to which level of information obtained during assessment, gender bias, and emotional contagion affect treatment decisions when domestic violence is present. Data was analyzed using both a univariate analysis of variance and a multivariate analysis of variance.

Participants

Participants were counselors, social workers, and psychologists currently working in a variety of clinical settings. Part of the study's intention was to ensure a broad variety of clinical backgrounds and settings in the interest of an exploratory analysis relative to the extent to which variables such as professional identity and level of education have a bearing on outcomes. The specific population that the sample represents is clinicians currently working as mental health practitioners. All participants were required to have at least a master's degree in their respective professions to be included in the final analysis.

Measures

Vignettes

Participants completed a series of instruments in response to a presented counseling vignette. The vignette described a couple presenting for counseling following a serious argument during which they were physically aggressive with one another (e.g., one slapped the other across the face, one pushed the other into a wall) and the police were called by a neighbor. The vignette indicated that, following this incident, the couple agreed that they should seek help to address these problems and have decided to enter counseling of their own free will (see Appendix E).

Vignettes were piloted with a group of counselor education doctoral students and practicing clinicians to ensure appropriateness and believability. The initial drafts of these vignettes were reviewed with a small group of practicing clinicians ($n = 3$) during which feedback was solicited in an informal meeting session for approximately one hour regarding their content and wording. Following these discussions, alterations were made to the final draft of each of the vignettes as needed, and the vignette was administered to a small sample ($n = 16$) of counselors, psychologists, social workers, psychiatrists, and counselor education/counseling psychology doctoral students. The intention of piloting these vignettes was to ensure that a variety of responses were provided by participants.

The case scenario described in the vignette had to be nebulous enough that participants pulled from their personal biases rather than from specific factors of the case to make a decision (see Levy & Hershey, 2008). If, for example, the entirety of the sample had concluded that couples counseling was the most appropriate choice, it

would have been assumed that there was some specific aspect of the described case that lead most clinicians to make this decision, and the vignette would have been altered accordingly. If responses were varied, it would have been assumed that clinicians were pulling more from some aspect of their personal experiences in their decision-making, which was in keeping with the purpose of this research. Gender neutral names (Pat and Terry) were selected in the interest of eliminating overt decisions relative to treatment as a result of client gender. The results of this piloting indicated that responses were varied, with approximately one half of the sample choosing couples counseling ($n = 7$) and the other half choosing individual treatment ($n = 9$).

Two versions of the same vignette were developed, and clinicians were randomly assigned to one of the two. One was the more nebulous version that provided limited information about the couple's background and history. The second was an identical vignette with one line of additional information providing an indication that the couple had an extensive history of mutually aggressive behaviors (see Appendix F).

The rationale for the use of such a short description was based on previous research suggesting that a slight change in context can significantly alter the process of decision-making. Dror, Charlton, and Péron (2006), in a study of decision-making in latent print experts, found that the interpretation of a print could be altered significantly by changing one aspect of contextual information. When five separate fingerprint experts were presented with the same fingerprints on two separate occasions, with one having a slight change in context (participants were informed that

the prints were mistakenly identified in a previous case), the end result was that the majority of these experts made different judgments in both cases (Dror, Charlton, & Péron, 2006). Sharps, Hess, and Ranes (2007) conducted a similar study of context in decision-making in which 78 participants were required to provide their opinion on a particular environmental issue based on a short paragraph describing the problem. The experimental manipulation in this case was that some of the participants were provided with a brief description of the contextual factors related to the specific problem. The resulting analysis suggested that this short description of contextual issues (as short as three sentences) had a significant impact on decision-making (Sharps, Hess, & Ranes, 2007). It should be noted, however, that there is no current research on change in contextual factors for counselors or psychologists.

Dependent Variables

Appropriate treatment type. After reading the counseling vignette, clinicians were asked to identify what type of treatment seemed most appropriate for this couple. The available options were limited to *Couples Treatment* and *Individual Treatment*, with no additional description regarding the specific course of treatment thereafter. The rationale for this lack of clarity was to ensure that, like the content of the vignettes, the available decisions are as nebulous as possible. This was again in the interest of ensuring that clinicians were more likely to access personal biases in the process of decision-making, as the treatment options were vague enough that clinicians were likely to pull from personal biases and experiences to determine what each of these treatment options entailed.

Participants were reminded in the instructions that they were to select a specific treatment option rather than simply making the choice that would provide them with additional assessment information. A follow-up question asked the participant to verify how certain they were about their decision via a five-point Likert scale (*not certain at all* [1] to *completely certain* [5]; see Appendices V and VI).

Regarding the treatment options, it was expected that, given the mutual pattern of abuse described in the vignette, this couple would be appropriate for couples treatment as there is no evidence of battering. Stith et al (2004) describe battering as a process of repeated intimidation in an effort to control on behalf of the male partner. The case scenario described in both vignettes indicated mutual abuse on behalf of both partners that was not life threatening and, as such, is in keeping with the framework of the conjoint couples model. The individual treatment option would be a valid treatment option for either vignette, but less so given the fact that the presenting problem appeared to be related to mutual aggression. It is important to note, however, that one of the individuals in the vignette was clearly stronger (Pat), as this partner was capable of knocking down the other and causing bruising while personally sustaining no physical injury from the altercation.

Independent Variables

Experience and Demographic Variables. A demographic questionnaire was included as a part of each survey. The demographic questions began by asking the participants' profession, age, gender, education level, and years of professional experience as a clinician following the completion of their master's degree. For the

purposes of exploratory analysis, additional information was obtained about the current clinical setting in which the clinician was employed, and the predominant setting in which the clinician has been employed since completing their master's degree (e.g., mental health, family therapy). Specific options were provided for each question, as well as an *other* option where participants could provide information not listed (see Appendix G).

Social context information. The social context variable was identified based on the specific vignette each clinician was randomly assigned. Clinicians receiving the first vignette, which provided only the details of the incident leading the couple to seek counseling, were identified as the group lacking social context information. Clinicians receiving the second vignette, which provided a brief description of the couple's history of mutual aggression, were identified as the group having relevant social context information.

Gender-related biases. Gender-related biases were assessed using the Beliefs About Men's Emotions scale (BAME; Heesacker et al, 1999), which is an eight item instrument used to assess the degree to which the clinician ascribes to the belief that men are hypoemotional. Item examples include *Female counseling clients usually don't need as much work as men on expressing their emotions*, and *Men are afraid of their feelings*, which the participants were asked to answer using a six-point Likert scale (*agree* [1] to *disagree* [8]). The scale has been found to have good reliability (Cronbach's Alpha of .73) and validity, as it correlates well with other instruments such as the Adversarial Sexual Beliefs scale (Heesacker et al, 1999; see Appendix H).

The BAME appears to be a good fit for the purposes of this research as it demonstrates the participant's tendency to hold negative beliefs about men's ability to process emotions effectively, which may be an inherent bias that impacts the likelihood of ascribing to couples treatment. The instrument was slightly modified from the version developed by Heesacker et al (1999) in that the validated version was intended to be a paper and pencil test while this study used it as a web-based instrument. The participant's response to the Likert scale for each of the individual items (1-6, with one indicating agreement with the statement and six indicating disagreement) was reverse scored and averaged together for a final BAME score of 1-6 for each participant. A score of 1 suggests that the participant has relatively lower bias directed toward male clients regarding hypoemotionality and a score of 6 indicates higher bias directed toward male clients regarding hypoemotionality (Heesacker et al.).

Emotional contagion. Emotional Contagion was assessed using the Emotional Contagion Scale (ECS), which is a 15-item instrument used to assess the participant's degree of susceptibility to the emotions of others (Doherty, 1997). Item examples include *I cry at sad movies*, and *It irritates me to be around angry people*, which the participant answers using a five-point Likert scale (*never* [1] to *always* [5]). The ECS appears to be a good fit for the purposes of this research as it demonstrates the participant's tendency to have a strong emotional and empathic response to others (Doherty), which may be an inherent bias that impacts the likelihood of ascribing to couples treatment. A participant with a higher ECS score may be more likely to

identify with the injured participant (Terry, as Pat has been identified as the stronger partner) and opt to err on the side of safety by choosing the separate treatment option.

The scale has been found to have good reliability (Cronbach's Alpha of .90) and validity, as it correlates well with other instruments such as measures of emotional reactivity, empathy, and emotionality (Doherty, 1997). The scale itself has five separate subscales related to five specific human emotions: happiness, love, fear, anger, and sadness. As there are no reverse scored items, each participant's scores were totaled and averaged to produce a total score for emotional contagion of 1-5. For the total score as well as the subscale scores, a score of 1 indicates lower susceptibility to emotional contagion and a score of 5 indicates higher susceptibility to emotional contagion. This total score will be used in the resulting analysis and hypothesis testing, though separate subscale scores for each of the five emotions will be calculated for the purpose of exploratory analysis (Doherty).

Social desirability. A measure of social desirability was included as well to ensure that participant scores were motivated more by internal processes related to personally (as opposed to socially) influenced biases. One of the short form versions of the Marlowe-Crowne Social Desirability Scale developed by Strahan and Gerbasi (1972) was used, as this version has been found to have a strong correlation with the original instrument as well as improved goodness of fit (Fischer & Fick, 1993). This instrument is a ten-item assessment, whereas the original instrument is 33 (see Appendix J).

For each item, participants were required to indicate either true or false. Strahan and Gerbasi provided a scoring key to indicate when an answer should be

indicated as true or false, and a score of one is provided for each item that deviates from these scores. If, for example, a participant reports false when presented with the statement *I like to gossip at times*, it can be assumed that the individual is being dishonest, and a score of 1 is provided for that item. The total of these items are summed for a score between 0 and 10, with 0 indicating lower social desirability and 10 indicating higher social desirability (Strahan & Gerbasi).

Power Analysis

An a priori power analysis was conducted using G*Power (Faul & Erdfelder, 1992). The primary purpose of this analysis was to determine the appropriate sample size necessary to avoid a Type II error (failure to reject the null hypothesis when in fact the alternative hypothesis is true). Cohen (1992) defines a large effect size as $d = .80$ and a medium effect size as $d = .50$. Given a multivariate analysis using three dependent variables and one categorical variable as a fixed factor, a medium effect size of $d = .50$ (6%) and alpha of .05 indicated that a sample size of at least 74 was necessary. This would satisfy the requirements for hypotheses two, three, and four. For hypothesis one, given an analysis using one dependent variable and one categorical variable as a fixed factor with two levels, a medium effect size of $d = .50$ (13.8%) and alpha of .05 indicated that a sample size of at least 208 was necessary.

Procedures

Participants were recruited via an email message that was distributed to online listserv groups and membership directories in counselor education, counseling psychology, and clinical psychology as well as several mental health clinics in the

Pennsylvania area (see Appendix L). As incentive for participation, participants were entered into a drawing for one of four \$25.00 gift cards to Amazon.com. The vignette and measures were completed online. All instruments were available through a web-based survey format. The average time it took to complete the entire study was 13 minutes.

Design

This was an analogue study, during which clinician's opinions regarding the appropriate treatment of the cases described in vignettes and related measures of emotional contagion, biases relative to men's emotions, and years of professional experience were assessed via a web-based survey. A web-based format was selected in the interest of convenience in the process of sampling, as well as providing an additional level of anonymity to participant response (no identifying information was be attached to the collected data). The primary design of this research was analysis of variance (ANOVA) and multivariate analysis of variance (MANOVA). Separate analyses were used for each of the hypotheses, as the research questions were dependent upon having different variables included. A regression analysis was impractical, as the independent variables in all of the four hypotheses were categorical.

Hypotheses

Hypothesis 1

Clinicians provided with more relevant social context information supportive of a history of mutual aggression will be more likely to choose couples counseling for mutually aggressive couples (Appendix A).

This hypothesis was tested by running a univariate ANOVA using social context as the fixed factor and certainty of their decision relative to appropriate treatment type as the dependent variable (1-5, with 1 indicating low certainty and 5 indicating high certainty). Support for this hypothesis was evidenced by a statistically significant difference between the two groups, with the relevant social context group having higher numerical scores indicating greater confidence in their decision than the group not having relevant social context information.

Hypothesis 2

Clinicians with more experience will be more likely to choose couples counseling for mutually aggressive couples regardless of social context information (Appendix B).

This hypothesis was tested by running a univariate ANOVA using decision relative to treatment type as the fixed factor and years of experience as the dependent variable for all participants who receive either version of the vignette. Support for this hypothesis was evidenced by a statistically significant difference between the two groups, with the group selecting couples treatment having significantly greater likelihood of having more years of professional experience.

Hypothesis 3

Clinicians with more experience and lower emotional contagion scores will be more likely to choose couples counseling for mutually aggressive couples regardless of social context information (Appendix C).

This hypothesis was tested by running a MANOVA using decision relative to treatment type as the fixed factor and years of experience and ECS as the dependent variables for all participants who receive either version of the vignette. Support for this hypothesis was evidenced by a statistically significant difference between the two groups, with the group selecting couples treatment having significantly greater likelihood of having more years of professional experience and lower ECS scores.

Hypothesis 4

Clinicians with more experience, lower emotional contagion scores, and lower perceived biases against male clients will be more likely to choose couples counseling for mutually aggressive couples regardless of social context information (Appendix D).

This hypothesis was tested by running a MANOVA using decision relative to treatment type as the fixed factor and years of experience, ECS, and BAME scores as the dependent variables for all participants who receive either version of the vignette. Support for this hypothesis was evidenced by a statistically significant difference between the two groups, with the group selecting couples treatment having significantly greater likelihood of having more years of professional experience as well as lower ECS and BAME scores.

Chapter 4

Results

This chapter presents the data and the analysis of the data collected through the survey. This includes the descriptive statistics, overview of data cleaning procedures, analysis of variance procedures and outcomes, and other statistical analysis pertaining to the following research questions:

Question 1. To what extent does relevant social context information supporting a mutual history of aggression influence the likelihood of choosing couples counseling for mutually aggressive couples?

Question 2. To what extent does having more experience influence the likelihood of choosing couples counseling for mutually aggressive couples regardless of social context information?

Question 3. To what extent does having more experience and lower emotional contagion influence the likelihood of choosing couples counseling for mutually aggressive couples regardless of social context information?

Question 4. To what extent does having more experience, lower emotional contagion, and lower gender bias influence the likelihood of choosing couples counseling for mutually aggressive couples regardless of social context information?

Descriptive Statistics/Preliminary Analysis

The online survey was hosted through www.qualtrics.com. A total of 219 participants took part in the online survey. To qualify for inclusion in the subsequent

analysis of data, participants were required to have at least a master's degree in the human services fields of counseling, psychology, or social work. Ten participants were eliminated from the final analysis as they indicated that they held degrees in other professions (1 participant was a psychiatrist), only had a bachelor's degree (3 participants), did not indicate their level of education (8 participants), or indicated having no experience as a clinician (16 participants). The final sample used for data analysis was 182. Given an analysis using one dependent variable, one categorical variable as a fixed factor with two levels, and a medium effect size of $d = .50$ (13.8%), the estimated power was .92.

Assumptions for analysis. The data were analyzed to verify that it met the assumptions necessary for a univariate ANOVA for all of the variables. The assumption of normality was violated for years of experience, as the data were significantly positively skewed, with almost half of clinicians reporting 10 years of experience or less (see Table 1). Attempts to transform data were unable to correct this problem, but analysis of variance was conducted anyway.

Missing data. In the case of the demographic question "How many years have you been in practice since receiving your highest degree?" 4 participants were missing data. A total of 30 participants were missing either BAME or Emotional Contagion scores, which made calculating total scale scores impossible for these participants. A total of 11 participants were missing data from the social desirability scale.

In coping with missing data for each of these variables, values for total scale scores were implemented using linear interpolation. Counseling research has

suggested that missing data should not simply be omitted from analysis, but that mean substitution alone is an ineffective alternative (Schlomer, Bauman, & Card, 2010). Linear interpolation has some support for effectiveness in the correction of missing data (Junninen, Niska, Tuppurainen, Ruuskanen, & Kolehmainen, 2004) and is a more complex approach than mean imputation by fitting lines between gaps of missing data. This method was valued over other approaches to missing data as it is not contingent upon the relationship among different variable sets (e.g., missing data in BAME scores were not accounted for based on available data in any other category) as the relationship of these variables to others is uncertain.

Descriptive statistics. Demographic information is included in Table 1. The sample overall was predominantly female, with male clinicians comprising only 31%. Eighty-nine percent of the sample identified as Caucasian, and 90% identified as straight/heterosexual. The sample represented a variety of different professional identities, with the majority stating that they identified as a counselor (34%) or a psychologist (52%). Average years of experience for the sample was 13.93 ($SD = 11.19$), though this statistic should be interpreted with some caution due to violations of normality (see Table 2; 90 participants reported having ten years or less experience, which constituted almost half of the sample). Average age of the sample was 48.70 ($SD = 13.07$). The mean Emotional Contagion Scale score for the entire sample was 2.92 ($SD = .38$), and the mean BAME score for the sample was 3.41 ($SD = .73$). For the sample as a whole, 43% selected separate treatment and 57% selected couples treatment. The data set overall represents predominantly female clinicians identifying as heterosexual.

Correlation. Correlations were examined to determine if the data would be better examined using a MANOVA analysis including all dependent variables or a series of ANOVA analyses examining dependent variables individually. Correlation data is provided in Table 3. BAME and years of experience were not significantly correlated, but all other correlations were significant at the $p < .05$ level. As correlation among the variables is a requirement for multivariate analysis, hypothesis three was examined using a MANOVA with ECS and years of experience as the dependent variables, and hypothesis four was examined using a MANOVA with ECS and BAME scores as the dependent variables.

Primary Analyses

Hypothesis 1. Clinicians provided with more relevant social context information supportive of a history of mutual aggression will be more likely to choose couples counseling for mutually aggressive couples (Appendix A).

This hypothesis was first tested by running a univariate ANOVA using social context as the fixed factor and treatment decision relative to appropriate treatment type as the dependent variable. There was a statistically significant difference at the $p < .05$ level for treatment decision based on the amount of social context information provided: $F(1, 180) = 8.07, p < .01$. For the clinicians receiving no social context information ($n = 86$), 33% selected separate treatment and 67% selected couples treatment. For the clinicians who did receive social context information ($n = 96$), 53% selected separate treatment and 47% selected couples treatment. This result was significant in the opposite direction of the hypothesis.

Hypothesis 2. Clinicians with more experience will be more likely to choose couples counseling for mutually aggressive couples regardless of social context information (Appendix B).

This hypothesis was tested by running a univariate ANOVA using decision relative to treatment type as the fixed factor and years of experience as the dependent variable for all participants who receive either version of the vignette. There was not a statistically significant difference at the $p < .05$ level for years of experience based on the treatment decision that the clinician indicated: $F(1, 180) = 1.72, p = .19$. Of the 79 individuals who selected individual treatment, the mean years of experience reported was 12.69 ($SD = 10.76$). Of the 103 individuals who selected couples treatment, the mean years of experience reported was 14.88 ($SD = 11.48$).

Given the positively skewed nature of the data set regarding years of experience (90 participants reporting between 1-10 years of experience), a separate ANOVA was conducted in the same format but using only the 90 participants identified as having ten years or less experience. While this reduced section of the sample did not meet the power requirements, it came closer to a normal distribution than the entire data set (see Table 4). There was not a statistically significant difference at the $p < .05$ level for years of experience based on the treatment decision that the clinician indicated: $F(1, 88) = .201, p = .66$. When a separate ANOVA was conducted using participants indicating more than ten years of experience ($n = 91$), there was not a statistically significant difference at the $p < .05$ level for years of

experience based on the treatment decision that the clinician indicated: $F(1, 90) = .08, p = .77$.

Experience's relationship with decision-making was further explored by parceling clinicians into less experienced and more experienced groups. Clinicians with 20 years or more experience (more experienced group, $n = 60$) were compared with clinicians with 5 years or less of experience (less experienced group, $n = 62$) with a univariate ANOVA using decision relative to treatment type as the fixed factor and experience group (more experienced or less experienced) as the dependent variable for all participants who receive either version of the vignette. There was not a statistically significant difference at the $p < .05$ level for experience group based on the treatment decision that the clinician indicated: $F(1, 121) = .70, p = .41$.

Hypothesis 3. Clinicians with more experience and lower emotional contagion scores will be more likely to choose couples counseling for mutually aggressive couples regardless of social context information.

As years of experience was correlated with ECS, this hypothesis was tested by running a MANOVA using decision relative to treatment type as the fixed factor and ECS and years of experience as the dependent variable for all participants who received either version of the vignette. As stated earlier, the assumption of normality was violated for years of experience data (see Table 2). There was not a statistically significant difference at the $p < .05$ level for the combined dependent variables based on the treatment decision that the clinician indicated: $F(2, 179) = 1.31, p = .27$; Wilks' Lambda = .99. When ECS was considered separately, it failed to achieve statistical significance at the $p < .05$ level: $F(1, 180) = .51, p = .48$. Of the 79

individuals who selected individual treatment, the mean ECS score was 2.90 ($SD = .36$). Of the 103 individuals who selected couples treatment, the mean ECS score was 2.94 ($SD = .39$).

Hypothesis 4. Clinicians with more experience, lower emotional contagion scores, and lower perceived biases against male clients will be more likely to choose couples counseling for mutually aggressive couples regardless of social context information.

As years of experience was not correlated with BAME scores, this hypothesis was tested by running a MANOVA using decision relative to treatment type as the fixed factor and ECS and BAME scores as the dependent variables for all participants who receive either version of the vignette. There was not a statistically significant difference at the $p < .05$ level for the combined dependent variables based on the treatment decision that the clinician indicated: $F(2, 179) = .60, p = .55$; Wilks' Lambda = .99. When BAME scores were considered separately, it failed to achieve statistical significance at the $p < .05$ level: $F(1, 180) = .86, p = .36$. Of the 79 individuals who selected individual treatment, the mean BAME score was 3.36 ($SD = .71$). Of the 103 individuals who selected couples treatment, the mean BAME score was 3.46 ($SD = .73$).

Differences Based on Social Context

As the impact of social context was the only variable to achieve statistical significance, hypotheses 2-4 were tested again for each group separately (those who received relevant social context information and those who did not).

Hypothesis 2, participants with no social context information. This hypothesis was tested by running a univariate ANOVA using decision relative to treatment type as the fixed factor and years of experience as the dependent variable for all participants who received the vignette with no social context information. There was not a statistically significant difference at the $p < .05$ level for years of experience based on the treatment decision that the clinician indicated: $F(1, 84) = .921, p = .34$.

Hypothesis 2, participants with social context information. This hypothesis was tested by running a univariate ANOVA using decision relative to treatment type as the fixed factor and years of experience as the dependent variable for all participants who received the vignette with social context information. There was not a statistically significant difference at the $p < .05$ level for years of experience based on the treatment decision that the clinician indicated: $F(1, 94) = 2.02, p = .16$.

Hypothesis 3, participants with no social context information. As years of experience was correlated with ECS, this hypothesis was tested by running a MANOVA using decision relative to treatment type as the fixed factor and ECS and years of experience as the dependent variable for all participants who received the vignette with no social context information. As stated earlier, the assumption of normality was violated for years of experience data (see Table 2). There was not a statistically significant difference at the $p < .05$ level for the combined dependent variables based on the treatment decision that the clinician indicated: $F(2, 83) = .84$,

$p = .63$; Wilks' Lambda = .99. When ECS was considered separately, it failed to achieve statistical significance at the $p < .05$ level: $F(1, 84) = .04, p = .84$.

Hypothesis 3, participants with social context information. As years of experience was correlated with ECS, this hypothesis was tested by running a MANOVA using decision relative to treatment type as the fixed factor and ECS and years of experience as the dependent variable for all participants who received the vignette with social context information. As stated earlier, the assumption of normality was violated for years of experience data (see Table 2). There was not a statistically significant difference at the $p < .05$ level for the combined dependent variables based on the treatment decision that the clinician indicated: $F(2, 93) = 1.97, p = .15$; Wilks' Lambda = .96. When ECS was considered separately, it failed to achieve statistical significance at the $p < .05$ level: $F(1, 94) = 1.09, p = .30$.

Hypothesis 4, participants with no social context information. As years of experience was not correlated with BAME scores, this hypothesis was tested by running a MANOVA using decision relative to treatment type as the fixed factor and ECS and BAME scores as the dependent variables for all participants who receive either version of the vignette. There was not a statistically significant difference at the $p < .05$ level for the combined dependent variables based on the treatment decision that the clinician indicated: $F(2, 83) = .10, p = .90$; Wilks' Lambda = .99. When BAME scores were considered separately, it failed to achieve statistical significance at the $p < .05$ level: $F(1, 84) = .13, p = .72$.

Hypothesis 4, participants with social context information. As years of experience was not correlated with BAME scores, this hypothesis was tested by running a MANOVA using decision relative to treatment type as the fixed factor and ECS and BAME scores as the dependent variables for all participants who receive either version of the vignette. There was not a statistically significant difference at the $p < .05$ level for the combined dependent variables based on the treatment decision that the clinician indicated: $F(2, 93) = .73, p = .48$; Wilks' Lambda = .99. When BAME scores was considered separately, it failed to achieve statistical significance at the $p < .05$ level: $F(1, 94) = .57, p = .45$.

Additional Analyses

As the data analysis provided no significant results for hypotheses 2-4, additional analyses were conducted to determine if other areas of the data might support the conclusions drawn from the literature.

Degree received. For the purposes of this analysis, experience was quantified as years of clinical practice, but level of education (e.g., master's versus doctoral degree) has been found to have an impact on decision-making as well (Brammer, 2002). The effect of education level was tested by running a univariate ANOVA using decision relative to treatment type as the fixed factor and education level as the dependent variable. There was not a statistically significant difference at the $p < .05$ level for education level based on the treatment decision that the clinician indicated: $F(1, 180) = .21, p = .65$.

Personal experiences. For the purposes of this analysis, the construct of bias was confined to biases regarding male emotional capacity in therapy. Another type of bias may be personal experiences related to a specific treatment. Levy and Hershey (2008) found that in situations where it is unclear exactly what method of treatment would be most effective, people distort the facts in front of them to suit their own values and beliefs. As older research has suggested that our clinical experiences impact our decisions (Carroll, Rosenberg, & Funke, 1988), it may serve to reason that past experience with domestic violence and/or battering may influence treatment decisions.

A univariate ANOVA was conducted using decision relative to treatment type as the fixed factor and exposure to mutual couples aggression in clinical work as the dependent variable for all participants who receive either version of the vignette. There was not a statistically significant difference at the $p < .05$ level for exposure to mutual aggression based on the treatment decision that the clinician indicated: $F(1, 179) = .98, p = .33$.

A univariate ANOVA was conducted using decision relative to treatment type as the fixed factor and exposure to battering in clinical work as the dependent variable for all participants who receive either version of the vignette. There was a statistically significant difference for exposure to battering based on the treatment decision that the clinician indicated: $F(1, 179) = 6.33, p < .01$. Of the 79 individuals that selected individual treatment, the mean report of exposure to battering was 2.86 ($SD = 1.02$). Of the 102 individuals who selected couples treatment, mean report of exposure to battering was 2.51 ($SD = .85$), indicating that, individuals with more

experience of mutual aggression were less likely to select couples treatment (see Table 6).

Certainty of decision-making. Research suggests that increased certainty may be reflective of either personal or professional bias, as individuals are less likely to consult with others regarding the nature of their decision, regardless of actual accuracy (Ruscio, 2000; Fraenkel, 2010). With regard to the treatment decision, all clinicians were asked to provide a rating of their certainty regarding the treatment option selected. A univariate ANOVA was conducted using decision relative to treatment type as the fixed factor and certainty of this decision as the dependent variable for all participants who received either version of the vignette. There was a statistically significant difference for certainty of decision-making based on the treatment decision that the clinician indicated: $F(1, 179) = 8.41, p < .01$. Of the 79 individuals who selected individual treatment, the mean certainty of decision-making (*not certain at all* [1] to *completely certain* [5]) indicated was 3.38 ($SD = 1.16$). Of the 102 individuals who selected couples treatment, the mean certainty of decision-making indicated was 2.94 ($SD = .88$), indicating that individuals with higher certainty of decision-making were less likely to select couples treatment (see Table 5).

A total of 8 participants selected the *Not Certain* option, with 3 choosing the separate option and 5 choosing the couples option. A total of 43 participants selected the *Somewhat Certain* option, with 17 choosing the separate option and 26 choosing the couples option. A total of 65 participants selected the *Fairly Certain* option, with 23 choosing the separate option and 42 choosing the couples option. A total of 47

participants selected the *Very Certain* option, with 19 choosing the separate option and 28 choosing the couples option. A total of 18 participants selected the *Completely Certain* option, with 17 choosing the separate option and 1 choosing the couples option.

Social desirability. A measure of social desirability was included as well to ensure that participant scores were motivated more by internal processes related to personally (as opposed to socially) influenced biases. One of the short form versions of the Marlowe-Crowne Social Desirability Scale (SDS) developed by Strahan and Gerbasi (1972) was used, as this version has been found to have a strong correlation with the original instrument as well as improved goodness of fit (Fischer & Fick, 1993). A univariate ANOVA was conducted using decision relative to treatment type as the fixed factor and SDS as the dependent variable for all participants who received either version of the vignette. There was not a statistically significant difference at the $p < .05$ level for SDS score based on the treatment decision that the clinician indicated: $F(1, 180) = .551, p = .46$.

Clinician gender. Univariate analysis was not used for gender due to the fact that the sample was predominantly female (31% were male) and comparison between groups would have likely been inaccurate due to the larger number of female clinicians. Descriptive statistics suggest that there may have been differences among male and female clinicians with regard to treatment decision selected. Of the 56 male clinicians in the sample, 63% chose couples treatment while only 37% chose separate treatment. Of the 126 female clinicians in the sample, 54% chose couples treatment while only 46% chose separate treatment, suggesting the possibility of a greater

propensity for separate treatment among female clinicians than male clinicians. It should also be noted that regardless of gender, a greater percentage of clinicians chose couples counseling.

Chapter 5

Discussion

This chapter will provide a general overview of the study's procedures, the findings of the research, its limitations, implications for practice, and suggestions for future research. The purpose of this study was to develop a more comprehensive understanding of how degree of information obtained during assessment, clinician experience, gender biases, and emotional contagion contributed to clinician decision-making when presented with a domestic violence scenario.

Study Summary

Data from 219 clinicians (counselors, social workers, and psychologists with a final sample size of 182) were gathered from several online listservs and member directories. The dependent variable in this study was the treatment decision selected by the clinician when presented with a vignette indicating mutual aggression between two gender-neutral clients. The independent variables were the amount of social context information included in the vignette, the participants' reported years of experience as a clinician, their score on the Beliefs About Male Emotions scale (BAME), and their score on the Emotional Contagion Scale (ECS). The amount of social context information available to the participants was manipulated as part of the study design.

For the purposes of data analysis, the dependent variable (treatment decision) was used as a grouping variable to compare differences between groups regarding the

independent variables. Multivariate analysis of variance (MANOVA) and univariate analysis of variance (ANOVA) were used to compare mean differences and interaction effects between participants selecting couples treatment and participants selecting individual treatment. Amount of social context information provided to clinicians had a significant impact on decision making, as clinicians with more social context information were more likely to select the individual treatment option. This finding was contrary to expectations based on the literature review. It was predicted that more social context information would lead to an increased likelihood of selecting couples treatment. No interaction was found among any of the independent variables. Participant's years of experience, ECS, and BAME scores were not found to have any significant differences between groups. Participants reporting a past history of encountering battering in their clinical work were significantly less likely to select couple's treatment. Participants selecting the couple's treatment option indicated significantly less certainty in their selected treatment option than those selecting individual treatment.

Summary of Findings

This study builds on previous research examining the factors that influence clinician decision-making, particularly in response to domestic violence issues. This research also examined some of the factors that may impact the likelihood of selecting either couples or individual treatment for couples presenting with mutual physical aggression. The dependent variable was the selected treatment option, and the independent variables were the amount of social context information included in

the client's presenting information, the participants' reported years of experience as a clinician, their score on the BAME, and their score on the ECS.

Relevant social context information. The amount of relevant social context information provided in the client's presenting information was found to have a significant impact on the treatment decision selected. The outcome, however, was the opposite of what was hypothesized based on the literature reviewed, as clinicians presented with additional social context information regarding the couple's extensive history of mutual aggression were more likely to select the separate treatment option. Relevant social context information (i.e., specific details about the client's background) has been shown to have an impact on decision-making in assessment (Hsieh & Kirk, 2003). It was hypothesized that, given past research suggesting that couples treatment is a more valid option for couples presenting with mutual aggression (Stith et al, 2004), clinicians presented with additional social context information indicating an extensive history of mutual aggression as opposed to battering would be more likely to select couples treatment.

One potential explanation for these findings may be the emphasis on safety concerns and fear of litigation rather than personal experiences or biases alone. With regard to safety of the clinician, there is evidence to suggest that malpractice lawsuits are a serious concern among mental health practitioners, and that identifying the potential a client has to harm another individual is an important issue (Hermann, Legett, & Remley, 2008). It may have been that clinicians presented with additional information regarding a history of abuse were more likely to perceive this as high risk of harm and greater risk of lawsuit, which led to the subsequent decision of individual

treatment to reduce risk of liability. With regard to safety of the client overall, it may simply have been that clinicians perceived individual treatment as a safer choice, in that they could better be capable of assessing severity of abuse throughout treatment. The importance of assessing intimate partner violence with each member of the couple individually has been emphasized in some literature (Kress, Protivlak, & Sadlak, 2008), and this propensity may have an impact on clinician decision-making regarding treatment.

Another possible explanation for this outcome may simply be a deficit of knowledge regarding current research related to couples treatment for domestic violence. Current editorial and literature review pieces have suggested that a substantial gap exists between the research and practice of counseling (Murray, 2009; Proctor, 2004), though actual data to confirm evidence of this gap is limited and generally confined to older research (e.g. Hallinan, 1996). Further research is necessary to provide current evidence of this discrepancy, but it is possible to assume that more knowledge exists among clinicians regarding treatment interventions that endorse separate treatment when violence is present as opposed to more recent couple-based treatment approaches pioneered by Stith et al. (2004) This would suggest that, as the clinicians were provided with more information about the social context of the couple, they were increasingly likely to adhere to the basics of the treatment approach that they were most comfortable with. Assuming this was the Duluth model, for example, individual treatment for each partner is required (Pence & Paymar, 1993).

These arguments of safety concerns and comfort, however, are brought into question by the fact that clinicians overall were more likely to select couples treatment than separate treatment (for the sample as a whole, 43% selected separate treatment and 57% selected couples treatment). This would suggest that there was a greater overall propensity among clinicians to believe that couples treatment was the most effective approach. There has been some evidence to suggest that clinicians in general do not engage in effective screening practices in assessing for domestic violence (Schacht, Dimidjian, George, & Berns, 2009), and that this may have some bearing on the likelihood of reliance on couples therapy as opposed to separate treatment. It may also have been that clinicians reading these vignettes made decisions to have both individuals present for treatment for fear that they would not be able to effectively evaluate the severity of violence in the relationship by only having one member present.

Years of experience. Clinician reported years of experience was not found to have any impact on treatment decision and no interaction effects were noted. This was contrary to current research suggesting that experience as a clinician is one of the more reliable predictors of clinician accuracy in decision-making (Spengler et al, 2009). One potential reason for this may simply be the nature of the data collected. As indicated in Table 1, the years of experience reported by participants was significantly positively skewed, with approximately half of the sample reporting between 1 and 10 years of experience as a clinician. This would suggest that the sample was too homogenous to find significant effects related to years of experience. Spengler et al reported that while the effect of experience was significant, the size

and impact of this effect was relatively limited. As such, this sample may not have been large enough to detect differences in decision-making relative to experience, as a smaller effect size would require a larger sample.

Another possible explanation for this finding may simply be a lack of connection between decision-making in domestic violence and years of experience. As stated earlier, the findings of Spengler et al (2009) suggest that the outcome of experience is indeed reliable, but small, accounting for improvement in overall accuracy in clinical decision-making by 13 %. This may indicate that decisions made regarding these case scenarios were subject to other variables not identified in the study (e.g., theoretical orientation). This may also suggest that experience does have an impact on the process of decision-making, but in a way that is not captured by a reporting of years of service in the field of counseling. Instead, this may reflect that the quality and type of experiences has the greatest bearing on outcomes relative to treatment decisions.

Emotional contagion. Clinician reported emotional contagion scores were not found to have a significant impact on decision-making and no interaction effects were noted. This was contrary to past research suggesting that overall emotion has a detrimental impact on decision-making in general (Ambady & Gray, 2002; Bodenhausen, Sheppard, & Kramer, 1994; Forgas, 1998). As such, it was assumed that an increased likelihood in emotional contagion would have an impact on the process of decision-making.

One possible explanation for this lack of significance may be the use of an analogue study. While the vignettes may have accurately conveyed the specifics of the event, they may not have been sufficient enough to elicit an emotional response

from the participants. Research has suggested that, while written vignettes may be a useful tool for studying behavior, video-taped vignettes tend to produce more reliable data (Sleed et al, 2002, as cited in Torres, 2009). It may be that simply reading about a couples counseling scenario did not elicit an emotional response, and that clinicians presented with a visual image of the couple would have been more likely to be influenced emotionally. If emotion was not a factor in the decision-making process, it would serve to reason that decision-making overall would not have been affected by emotional contagion.

Beliefs about male emotion. Clinician reported BAME scores were not found to have a significant impact on decision-making and no interaction effects were noted. This was contrary to past research suggesting that gender bias of the counselor plays a role in assessment (Einarsdóttir & Rounds, 2009) and clinicians ascribing to more stereotypical views relative to men are more likely to assign blame to male clients in couples counseling scenarios (Heesacker et al, 1999). This might be attributed to the use of gender neutral names in the presented vignettes. These names were intended to be gender neutral in the interest of increasing the nebulous nature of the presented vignette and subsequently increasing the variety of responses provided by requiring clinicians to pull from personal experiences and personal biases in the decision-making process rather than information provided in the vignette. It may be that male bias did play a role in the decision-making process, but different clinicians ascribed different gender to the partners, thus marring the significance of the data.

Past exposure to battering in clinical work. The amount of professional experience with battering was found to have a significant impact on the treatment decision selected. Clinicians with more exposure to battering (though not domestic violence) were significantly less likely to select the couples treatment option. What

this reflects with regard to the decision-making process is unclear. Research conducted by Owen (2008) has suggested that counselors conducting intake assessments are far more likely to attempt to confirm their own hypotheses rather than attempting to disconfirm their hypotheses, which may suggest that this has to do with a professional bias of some kind. One explanation may be that clinicians with greater exposure to battering – a process of repeated intimidation in an effort to control on behalf of one partner in a relationship, typically the male partner (Stith et al, 2004) – were more likely to utilize a confirmatory bias in evaluating the vague description provided in the written vignette. Another explanation may be that these clinicians were making accurate decisions based on valid judgments inferred from experiences. The nature of these vignettes suggests that couples or individual counseling could be appropriate, which makes it difficult to infer if decisions based on past experiences were the result of bias or learning.

Certainty of decision-making. There was a statistically significant difference for certainty of decision-making based on the treatment decision that the clinician indicated. Clinicians selecting the separate treatment option were significantly more certain of their decision than those selecting the couples treatment option.

The extent to which certainty has an impact on the process of decision making is unclear, particularly with regard to the idea of certainty as being either post hoc or ad hoc. Research suggests that increased certainty may be reflective of either personal or professional bias, as individuals are less likely to consult with others regarding the nature of their decision, regardless of actual accuracy (Ruscio, 2000; Fraenkal, 2010). In decision-making in the medical field, certainty of a decision has been found to be

highly correlated with clinical actions, suggesting that the higher an individual's indicated certainty, the greater chance that they will follow up with related behaviors (Lutfey et al, 2009). Fraenkal (2010), who has conducted research in patient decision-making, found increased certainty of a decision leads to decreased likelihood of incorporating others in the decision-making process. Research conducted by Owen (2008) has suggested counselors conducting intake assessments are far more likely to attempt to confirm their own hypotheses rather than attempting to disconfirm their hypotheses, suggesting bias and inaccuracy of decision-making may have a tentative connection. In the case of decision-making relative to domestic violence, it may be that clinicians suggesting an increased level of certainty are more likely to be making decisions based on personal biases.

Gender of the clinician. While ANOVA was not conducted due to limitations within the sample, it was noted that a larger percentage of female clinicians chose the separate treatment option than male clinicians (46 % versus 37%). Inferences based on this finding are tenuous given the use of only descriptive statistics as well as the noted disparity of male clinicians in the sample (56 males as opposed to 126 females). Past research has suggested, however, that gender of the clinician may play a role in the decision-making process, as clinicians in general weight cues of potential future aggression differently with the opposite sex, and that this difference is more pronounced for female clinicians than male clinicians (Elbogen, Williams, Tomkins, & Scalora, 2001). This may simply indicate that, regardless of the gender neutral names used in the vignettes, female clinicians used a different decision-making schema than their male counterparts.

Limitations

Several limitations exist as a result of either sampling methodology or design. The use of written vignettes may have limited the emotional response elicited in participants. The sample was significantly positively skewed with regard to years of experience and gender, with far more female and less experienced clinicians (1-10 years) participating. The use of gender neutral names may have increased the variety of responses to treatment scenarios, but may also have decreased the ability to identify male bias as a contributing factor to decision-making.

An additional limitation is the use of survey research in predicting behavior. The complicated nature of portraying domestic violence would have made it difficult to construct audio or video vignettes, which resulted in the use of written vignettes for convenience in design and sampling. This is a concern, as research has suggested that video-taped vignettes tend to produce more reliable data (Sleed et al, 2002, as cited in Torres, 2009). Current literature related to the science of examining counseling has suggested that the use of survey methods creates the problem of manifest variables, which are typically subject to measurement error (Heppner, Wampold, & Kivlighan, 2007).

It should also be noted that the sample was homogenous with regard to gender, race and sexual orientation. As previously stated, the sample was predominantly female (69%), Caucasian (89%), and heterosexual (90%). This suggests that broad application of these findings to diverse populations may be specious.

Study Strengths

The study presents an important contribution to the current body of counseling literature. This research is the beginning of an investigation into the factors that impede the use of evidence-based practice in domestic violence counseling as well as general counseling. The call for evidence-based practice has been influenced by the previously mentioned concerns that the integration between counseling research and counseling practice may be limited despite ever-increasing demands for stringency on behalf of governing institutions such as insurance companies (Sexton, 2000). The finding that professional experiences with battering have an impact on the likelihood of treatment decisions suggests that our professional and clinical experiences may have a significant impact on the likelihood of implementing evidence-based treatments when our personal instincts suggest otherwise. Couples therapy has been shown to be effective when domestic violence (not battering) is evident (Stith et al). The more professional experience that clinicians in this study had with violent couples, the less likely they were to chose couples therapy when presented with domestic violence.

An additional strength of this study is its contribution to the general body of domestic violence treatment research and training. The etiology of domestic violence in relationships appears to be more complicated than what has been described by traditional approaches to treatment (Dutton, 2006), but there is existing evidence to suggest that one of the most important factors to successful treatment in counseling is assurance that all relevant parties are engaged and motivated in the process (Alexander & Sexton, 2003). In this case, past experiences of the clinician impeded

the likelihood of including all relevant parties in treatment. If past experiences have an effect on our clinical decision-making, this study sheds light on the importance of acknowledging these effects in clinical training and implementation of treatment in the interest of assuring appropriate engagement of all relevant parties.

Implications for Practice

The findings regarding the impact of personal experiences in decision-making shed light on the importance of clinicians working to effectively understand the role of past experiences during their training. Countertransference literature suggests that the therapist's emotional experiences with clients can have a significant impact on the decisions made in treatment (Betan, Heim, Conklin, & Westen, 2005). This suggests that unresolved past experiences may serve to evoke a rigid response in treating clinicians (e.g., if a clinician has a strongly negative experience utilizing couples counseling in a domestic violence scenario, they will be less likely to implement couples counseling for domestic violence in the future regardless of what current research suggests). Current CACREP standards do not specifically require or admonish the idea of personal counseling for counselor trainees (CACREP, 2009), but the findings of this study suggest that students may benefit from a more intense exploration of their emotional response to treatment either as a separate aspect of training (such as required personal counseling) or as a fundamental aspect of supervision during practicum or internship.

This is equally true for clinicians currently in practice. The idea that clinician emotional responses have an impact on treatment (Betan et al, 2005) is of

consequence to practicing clinicians as well as novice clinicians in training. This suggests that clinicians in the field may benefit from continued personal psychotherapy as well as regular clinical supervision to assure the effectiveness of decision-making and provided treatment.

Suggestions for Future Research

This study raises several questions that may warrant further investigation. First, while this research may have provided some support regarding the impact of professional experiences in clinical decision-making, the extent to which other specific professional experiences affect the process is unclear. Additional research might investigate clinical decision-making in other settings not related to domestic violence treatment, and the extent to which these experiences can be categorized as emotionally significant to the clinician. The concept of the *wounded healer* refers to the notion that personal experiences may have a lingering effect on practice (Jackson, 2001), and additional understanding of the specific experiences that facilitate this in the process of counseling may be beneficial.

Second, these findings were contrary to past research suggesting that gender bias of the counselor plays a role in assessment (Einarsdóttir & Rounds, 2009) and clinicians ascribing to more stereotypical views relative to men are more likely to assign blame to male clients in couples counseling scenarios (Heesacker et al, 1999). As previously mentioned, the use of gender neutral names may have had an impact on these findings. A replication of this study may benefit from more obvious delineation of client gender, which may produce more significant findings relative to

the influence of clinician gender bias. As indicated by some of the study's descriptive statistics (e.g., there was a greater propensity for separate treatment among female clinicians than male clinicians) it may also be that gender bias plays a small role in the process, but that gender of the assessing clinician is of greater consequence. In this case, there was a noted difference between male and female clinicians with a greater percentage of male clinicians favoring couples treatment than female clinicians.

Third, this study required the use of written vignettes for convenience in design and sampling which may have had an impact on the lack of significance related to emotional contagion. As mentioned earlier, research has suggested that video-taped vignettes tend to produce more reliable data (Sleed et al, 2002, as cited in Torres, 2009). As such, this study might also be replicated using videotaped vignettes of couples counseling rather than written vignettes.

Finally, the lack of an effect in decision-making relative to experience contradicts past research suggesting that this should be a significant finding (Spengler et al, 2009). The importance of this finding is the impact that training and experience have in any profession, as increases in either should potentially have an effect on the quality of services provided. One option may be to replicate this study using stratified random sampling of clinicians to ensure that the data regarding years of experience is closer to a normal distribution.

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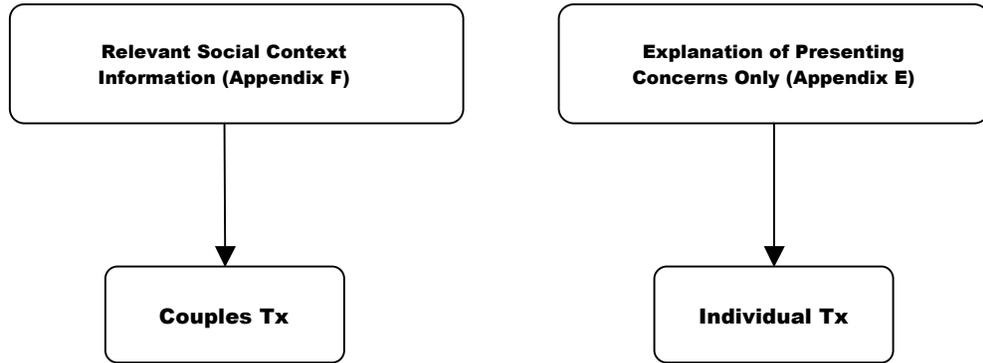
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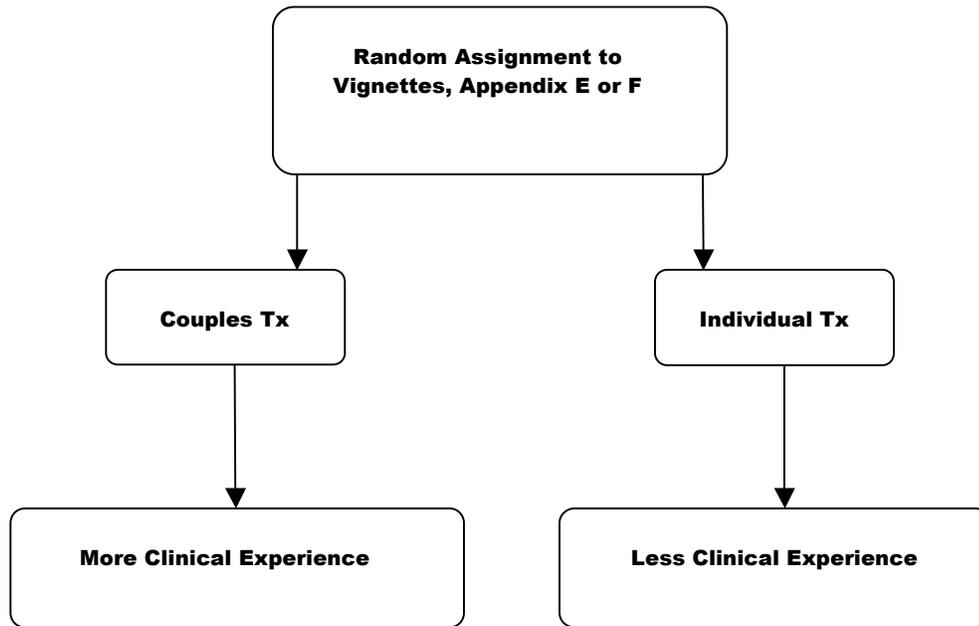
Appendix A

Hypothesis One



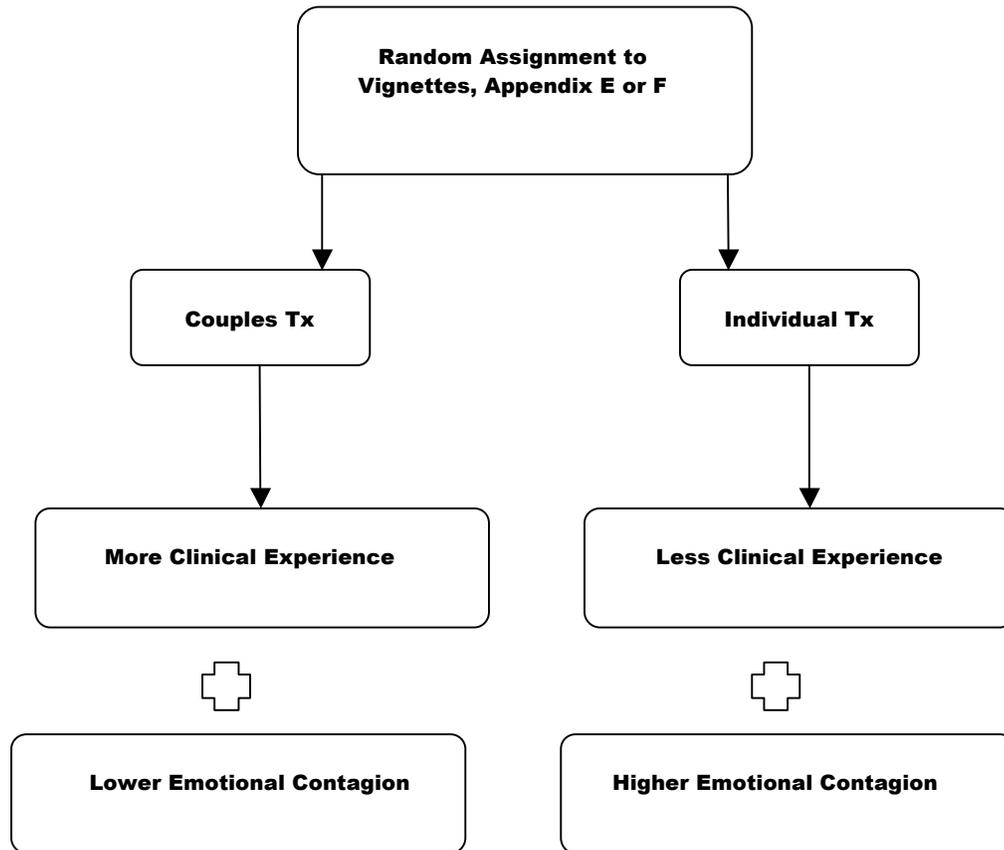
Appendix B

Hypothesis Two



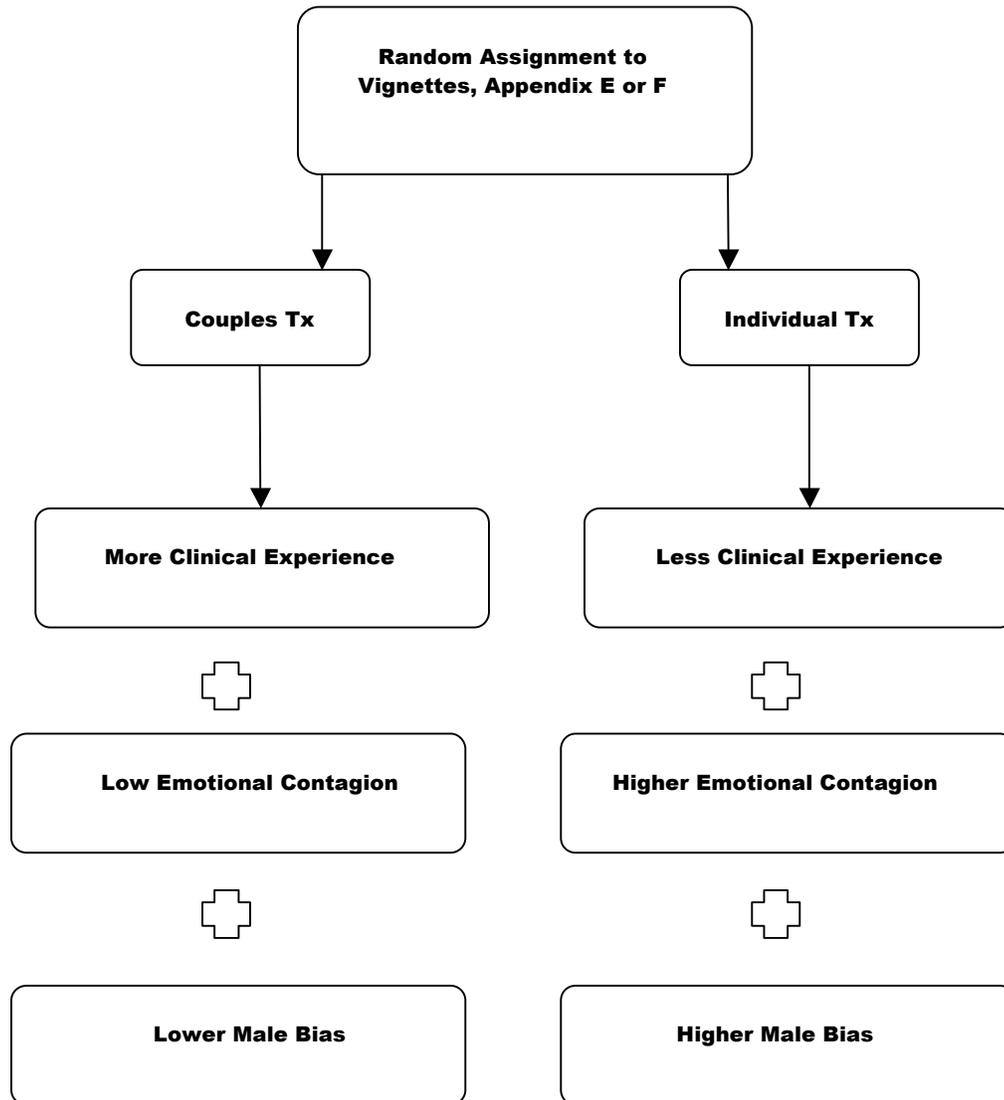
Appendix C

Hypothesis Three



Appendix D

Hypothesis Four



Appendix E

Vignette with no social context information

Imagine that you are a counselor working in private practice.

Pat and Terry are a couple presenting for counseling of their own free will. According to both, during a recent argument the two exchanged verbal jabs for the better part of thirty minutes until their voices were raised and they were standing face to face in the living room. At this time, Pat became angry and shoved Terry, knocking Terry into a wall. Terry then slapped Pat, to which Pat again responded by pushing Terry against the wall, hard enough that Terry fell down. It was at this time that the police arrived at their front door. Terry has some bruising, but the slap to Pat's face did not leave a mark.

Read the following two treatment options and select which seems the most appropriate for this couple. While it will be difficult to make a treatment decision with the limited amount of information presented here, do your best to select which option you believe would be most appropriate in this situation.

1. Separate treatment
2. Couples treatment

How certain are you about your decision?

1. Not certain at all.
2. Somewhat certain.
3. Fairly certain.
4. Very certain.
5. Completely certain.

Appendix F

Vignette with social context information

Imagine that you are a counselor working in private practice.

Pat and Terry are a couple presenting for counseling of their own free will. According to both, during a recent argument the two exchanged verbal jabs for the better part of thirty minutes until their voices were raised and they were standing face to face in the living room. At this time, Pat became angry and shoved Terry, knocking Terry into a wall. Terry then slapped Pat, to which Pat again responded by pushing Terry against the wall, hard enough that Terry fell down. It was at this time that the police arrived at their front door. Terry has some bruising, but the slap to Pat's face did not leave a mark. Upon questioning the couple further, they indicate that they have an extensive history of mutual physical violence.

Read the following two treatment options and select which seems the most appropriate for this couple. While it will be difficult to make a treatment decision with the limited amount of information presented here, do your best to select which option you believe would be most appropriate in this situation.

1. Separate treatment
2. Couples treatment

How certain are you about your decision?

1. Not certain at all.
2. Somewhat certain.
3. Fairly certain.
4. Very certain.
5. Completely certain.

Appendix G

Demographic and Background Questionnaire

1. What is your current age?

2. What is your gender?

- a. Male
- b. Female

3. How would you describe your relationship status?

- a. Single
- b. Partnered
- c. Married

4. What is your race?

- a. Caucasian
- b. African American
- c. Hispanic
- d. Asian
- e. Native American
- f. Other: _____

5. How would you describe your sexual orientation?

- a. Straight/Heterosexual
- b. Gay/Lesbian
- c. Bisexual
- d. Transgendered
- e. Other: _____

4. What is your highest mental health practitioner related degree earned?

- a. Bachelor's degree
- b. Master's degree
- c. Doctoral Degree
- d. Other: _____

5. What was your major for your highest degree earned?

6. Which of the following best describes your professional identity?
- Counselor
 - Marriage and Family Therapist
 - Psychologist
 - Social Worker
 - Other: _____
7. How many years have you been in practice since receiving your highest degree?
- _____
9. In what type of setting are you currently employed?
- Private practice
 - Hospital
 - Family support center
 - Drug and alcohol rehabilitation center
 - Women's outreach program or supportive shelter
 - Community Agency different from the above
 - Other: _____
10. How often have you encountered mutual aggression between two partners in your work as a clinician?
- Never
 - Rarely
 - Sometimes
 - Often
 - Constantly
11. How often have you encountered battering (repeated emotional or physical intimidation by one partner) in your work as a clinician?
- Never
 - Rarely
 - Sometimes
 - Often
 - Constantly
12. Have you ever experienced domestic violence or battering in your personal life?
- Yes
 - No

Appendix H

Beliefs About Men's Emotions Scale (Heesacker et al, 1999)

Using the following scale, please indicate the number that best reflects your opinion.

1-----2-----3-----4-----5-----6
Agree
Disagree

1. When it comes to emotion, men and women are quite different.
2. Men don't express their emotions very much.
3. Women have more awareness than men of their own emotions.
4. Women are better at expressing their emotions than men.
5. Men are afraid of their feelings.
6. Men don't connect their emotions to sex as much as women do.
7. Female counseling clients usually don't need as much work as men on expressing their emotions.
8. Men rely on intellectualization more than women do to cope with threatening feelings.

Appendix I

Emotional Contagion Scale (Doherty, 1997)

1. If someone I'm talking with begins to cry, I get teary-eyed.
 - a. Never
 - b. Rarely
 - c. Usually
 - d. Often
 - e. Always

2. Being with a happy person picks me up when I'm feeling down.
 - a. Never
 - b. Rarely
 - c. Usually
 - d. Often
 - e. Always

3. When someone smiles warmly at me, I smile back and feel warm inside.
 - a. Never
 - b. Rarely
 - c. Usually
 - d. Often
 - e. Always

4. I get filled with sorrow when people talk about the death of their loved ones.
 - a. Never
 - b. Rarely
 - c. Usually
 - d. Often
 - e. Always

5. I clench my jaws and my shoulders get tight when I see the angry faces on the news.
 - a. Never
 - b. Rarely
 - c. Usually
 - d. Often
 - e. Always

6. When I look into the eyes of the one I love, my mind is filled with thoughts of romance.
- Never
 - Rarely
 - Usually
 - Often
 - Always
7. It irritates me to be around angry people.
- Never
 - Rarely
 - Usually
 - Often
 - Always
8. Watching the fearful faces of victims on the news makes me try to imagine how they might be feeling.
- Never
 - Rarely
 - Usually
 - Often
 - Always
9. I melt when the one I love holds me close.
- Never
 - Rarely
 - Usually
 - Often
 - Always
10. I tense when overhearing an angry quarrel.
- Never
 - Rarely
 - Usually
 - Often
 - Always
11. Being around happy people fills my mind with happy thoughts.
- Never
 - Rarely
 - Usually
 - Often
 - Always

12. I sense my body responding when the one I love touches me.
- Never
 - Rarely
 - Usually
 - Often
 - Always
13. I notice myself getting tense when I'm around people who are stressed out.
- Never
 - Rarely
 - Usually
 - Often
 - Always
14. I cry at sad movies.
- Never
 - Rarely
 - Usually
 - Often
 - Always
15. Listening to the shrill screams of a terrified child in a dentist's waiting room makes me feel nervous.
- Never
 - Rarely
 - Usually
 - Often
 - Always

Appendix J

Short Form of the Marlowe-Crowne Social Desirability Scale (Strahan & Gerbasi, 1972)

Please answer the following questions as either true or false.

1. I like to gossip at times. (True)
2. There have been occasions when I took advantage of someone. (True)
3. I'm always willing to admit it when I make a mistake. (False)
4. I always try to practice what I preach. (False)
5. I sometimes try to get even rather than forgive and forget. (True)
6. At times I have really insisted on having things my own way. (True)
7. There have been occasions when I felt like smashing things. (True)
8. I never resent being asked to return a favor. (False)
9. I have never been irked when people expressed ideas very different from my own.
(False)
10. I have never deliberately said something that hurt someone's feelings. (False)

Appendix K

Recruitment email

Dear Clinician,

You are invited to participate in a research study affiliated with the Pennsylvania State University examining the factors that influence clinician decision-making in domestic violence scenarios. The purpose of this study is to better understand how personal biases and individual experiences affect the decision-making of counselors.

If you choose to participate, you will be asked to fill out a series of survey questions related to your beliefs and opinions as well as your reaction to a hypothetical case scenario. Certain characteristics of this scenario will be manipulated as part of the research design.

If you are interested in participating, please follow the web link below to begin the on-line survey. The entire process should take 5-10 minutes to complete. In addition to several questions about the case scenario, you will also be asked to provide some demographic information about yourself and your background as a clinician. The information that you provide will be kept confidential as you will not be asked to identify yourself in the survey.

As an incentive to participate, you will be placed in a drawing to receive one of four \$25 gift cards for Amazon.com. Four participants will be drawn at random from the entire subject pool. The chances of receiving one of these gift cards will be approximately 1 in 50.

If you agree to participate in this study, simply go to the following link. You will be asked to read additional information about the study before accessing the survey. Please complete the online survey by December 2, 2010.

<http://tobedetermined>

If you have questions regarding this study or would like a copy of the study results, please feel free to contact Charles Jacob at cjj145@psu.edu or (814)-863-2412. Please keep this letter for your records. Thank you very much for your time.

Sincerely,
Charles J. Jacob, M.S.Ed., LPC, LMFT, NCC
Doctoral Candidate
The Pennsylvania State University

Appendix L

Listsers used in data collection

1. The Counselor Education and Supervision Network Listserv
2. Counseling Psychology Division 17 Listserv
3. The New Jersey Mental Health Counseling Association Listserv
4. The Pennsylvania Mental Health Counseling Association Listserv
5. The Association for Counselor Education and Supervision Graduate Student Listserv
6. The Pennsylvania Psychological Association member directory
7. Ohio State University's COUNSGRADS listserv
8. Texas Counseling Association member directory
9. New England Holistic Counselors Association member directory
10. The Maine Clinical Counselors Association member directory

Table 1

Demographics

| Demographics | Frequency | Percent |
|-----------------------|-----------|---------|
| Gender | | |
| Male | 56 | 30.8 |
| Female | 126 | 69.2 |
| Race | | |
| Caucasian | 162 | 89 |
| African American | 6 | 3.3 |
| Hispanic | 6 | 3.3 |
| Asian | 3 | 1.6 |
| Native American | 1 | .5 |
| Other | 4 | 2.2 |
| Sexual Orientation | | |
| Straight/Heterosexual | 163 | 89.6 |
| Gay/Lesbian | 7 | 3.8 |
| Bisexual | 9 | 4.9 |
| Transgendered | 1 | .5 |
| Other | 1 | .5 |
| Highest Degree | | |
| Master's | 68 | 37.4 |
| Doctoral | 114 | 62.6 |
| Professional Identity | | |
| Counselor | 62 | 34.1 |
| Mar./Fam. Therap. | 9 | 4.9 |
| Psychologist | 94 | 51.6 |
| Social Worker | 5 | 2.7 |
| Other | 9 | 4.9 |

Table 2

Frequency of years of experience reported by clinicians for the entire data set

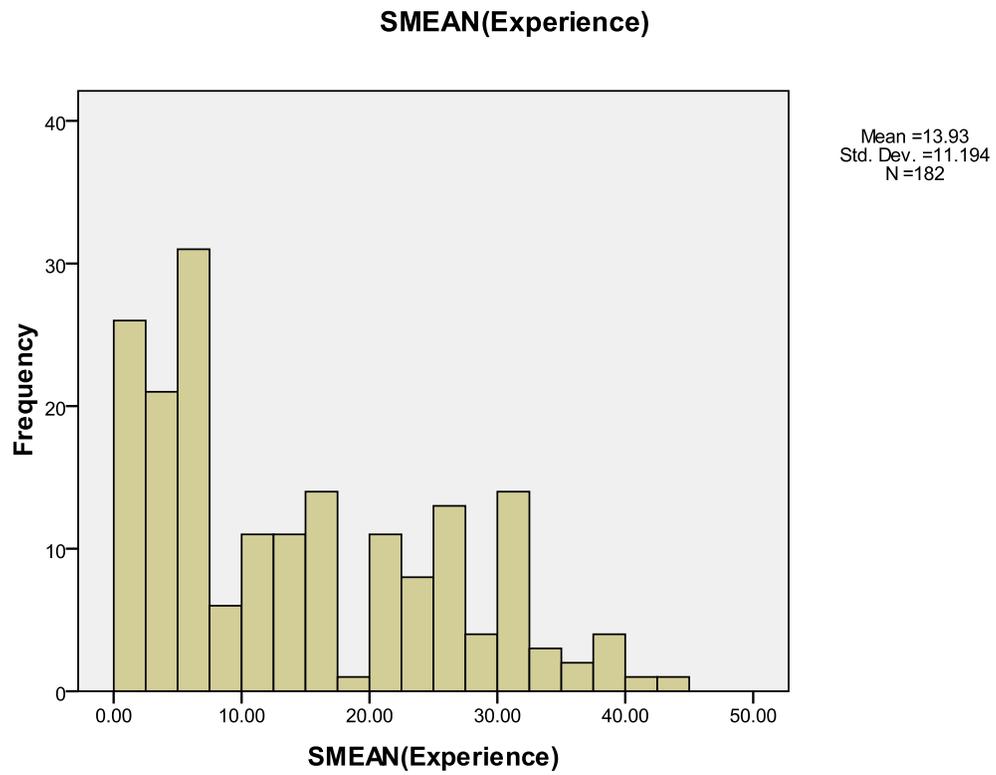


Table 3

Correlations of dependent variables

| | | Years of Experience | EC Scores | BAME Scores |
|---------------------|---------------------|------------------------|-----------|-------------|
| Years of Experience | Pearson Correlation | 1 | -.166* | .089 |
| | Sig. (1-tailed) | | .012 | .116 |
| | N | 182 | 182 | 182 |
| EC Scores | Pearson Correlation | -.166* | 1 | .152* |
| | Sig. (1-tailed) | .012 | | .020 |
| | N | 182 | 182 | 182 |
| BAME Scores | Pearson Correlation | .089 | .152* | 1 |
| | Sig. (1-tailed) | .116 | .020 | |
| | N | 182 | 182 | 182 |

*. Correlation is significant at the 0.05 level (1-tailed).

Table 4

Frequency of years of experience reported by clinicians with ten years or less of experience

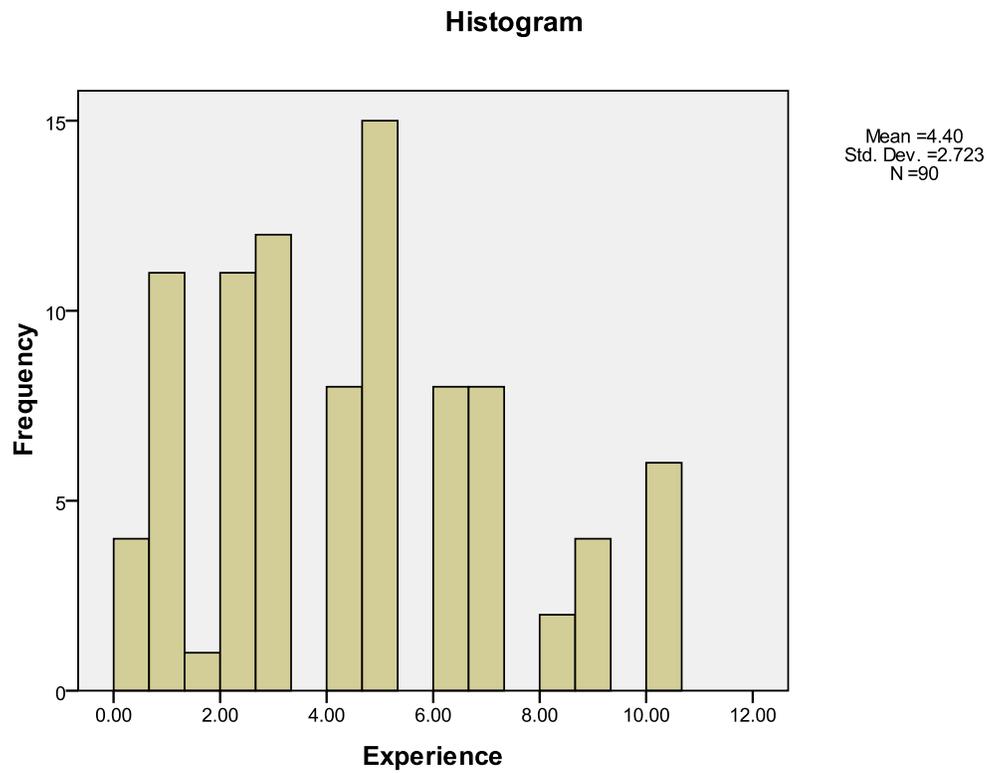


Table 5

Graph of mean exposure to battering by treatment decision

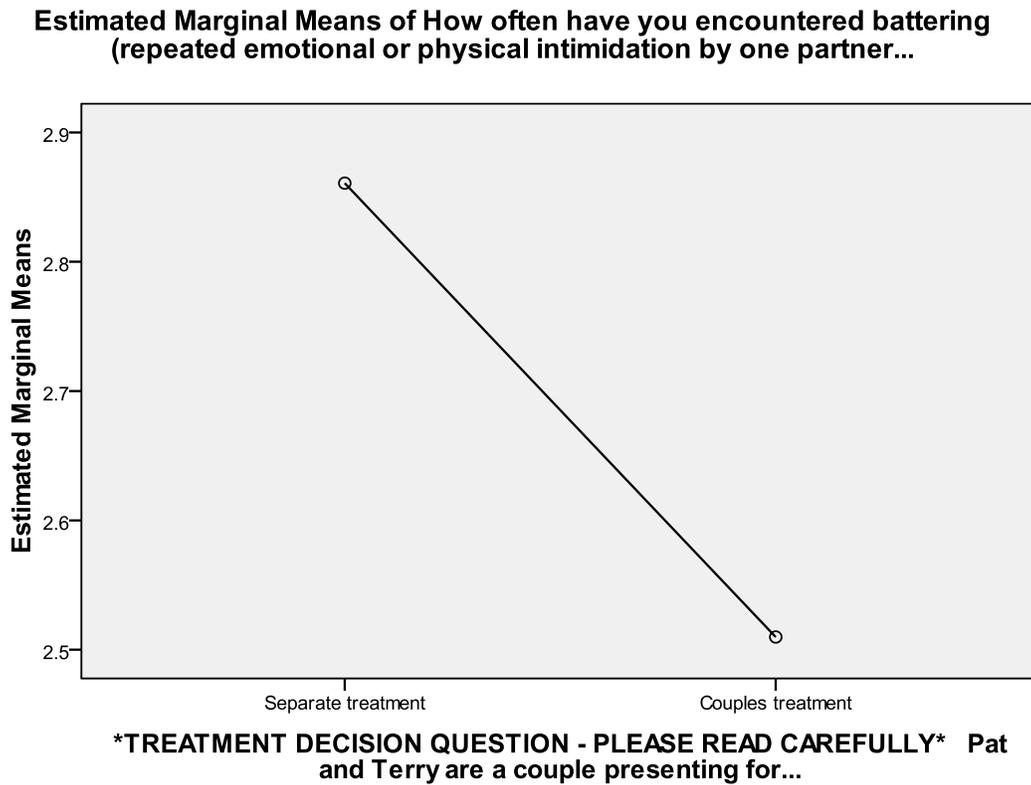
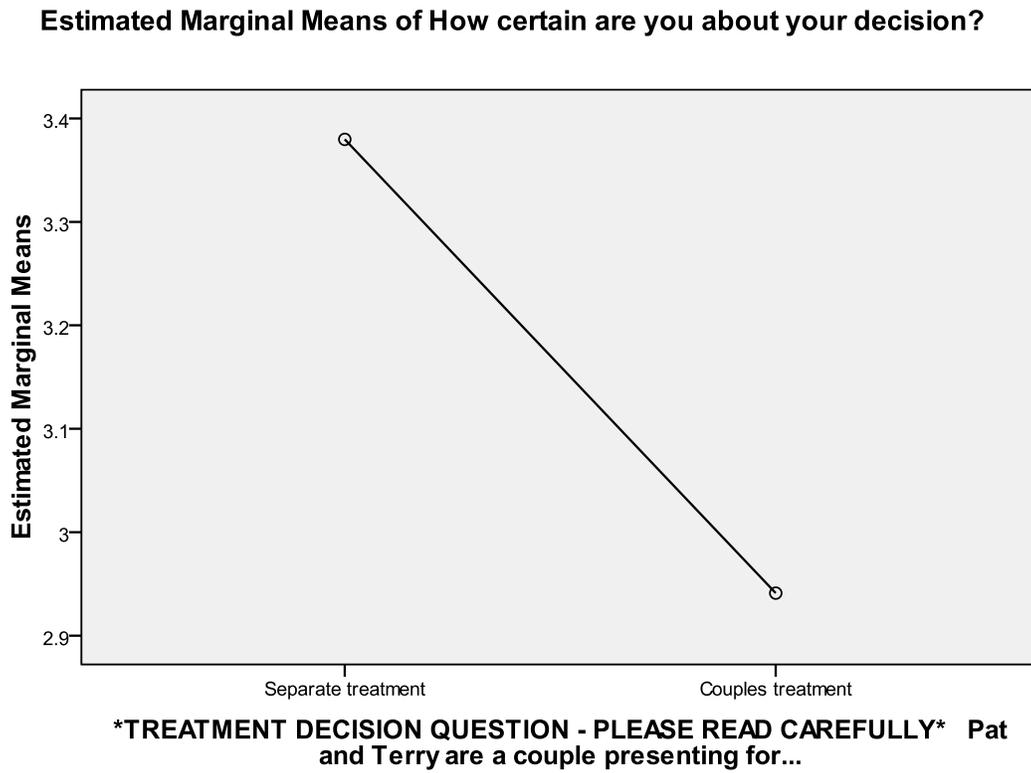


Table 6

Graph of mean certainty of decision-making by treatment decision



VITA

CHARLES JASON JACOB

EDUCATION

The Pennsylvania State University, University Park, PA: Ph.D., Counselor Education and Supervision, Expected Graduation December 2010

LICENSES & CERTIFICATIONS

Licensed Professional Counselor, Connecticut: License # 001731
Licensed Marriage & Family Therapist, Pennsylvania: License # MF000509
Licensed Professional Counselor, Pennsylvania: License # PC004031.
Nationally Certified Counselor: National Board for Certified Counselors.
Certified Functional Family Therapist: FFT Inc.

TEACHING EXPERIENCE

Class Co-Instructor: Intro to Counseling Theory, University Park, PA Summer 2010
Class Co-Instructor: Group Counseling, University Park, PA Fall 2010

COUNSELING EXPERIENCE

Counselor: Sunpointe Health, State College, PA 2008-2010
Family Therapist: NDRI/FFT Inc., 2005-2008

SUPERVISION EXPERIENCE

Practicum Supervisor: Master's Level Counseling Practicum, University Park, PA 2009-2010

SELECTED PUBLICATIONS

Jacob, C. J. (2010). *Career Flow: Instructor's Manual and Student Success Lab*. Pearson: Boulder, CO. *Textbook in press*.
Jacob, C. J. (2009). Decision-making in counseling: Helping developing clinicians recognize potential errors. *Manuscript submitted to Counselor Education and Supervision*.
Carney, J. L., Jacob, C. J., & Hazler, R. (2009). Effects of bullying on the development of social capital in adolescence. *Manuscript submitted to Journal of Humanistic Counseling and Development, in press*.
Niles, S. G., Jacob, C. J., & Nichols, L. M. (2008). Self-esteem and career development, in M. Gordon (Ed.) *Self-Esteem Across the Lifespan* (pp. 249-262). New York: Routledge.

SELECTED PRESENTATIONS

Jacob, C. J. (2010). Re-conceptualizing domestic violence counseling for mutually aggressive couples: The influences of personal bias and assessment procedures. *Presented at the American Family Therapy Academy in Boulder, CO*.
Jacob, C. J. (2009). Effects of bullying on the development of social capital in adolescence. *Presented at the XIV European Conference on Developmental Psychology in Vilnius, Lithuania*
Jacob, C. J. (2009). Effects of bullying on the development of social capital in adolescence. *Presented at the Association for Counselor Education and Supervision annual conference in San Diego, California*.