Attrition from Couple Therapy: Individual Symptoms, Relationship Adjustment, and Stage of Change

by

Rebecca Joy Goodman

A thesis submitted to the Graduate Faculty of
Auburn University
in partial fulfillment of the
requirements for the Degree of
Master of Science

Auburn, Alabama
December 14, 2013

Keywords: couple therapy, dropout, premature termination, attrition, individual symptoms, relationship quality, dyadic adjustment, stage of change

Copyright 2013 by Rebecca Joy Goodman

Approved by

Scott Ketring, Chair, Associate Professor, Human Development and Family Studies
Amy Rauer, Assistant Professor, Human Development and Family Studies
Stephen Erath, Associate Professor, Human Development and Family Studies

Abstract

Research has indicated that attrition in psychotherapy is a problem for therapists and clients. Additionally, there is a lack of research pertaining specifically to factors affecting dropout rates in couple therapy. In this study, this gap in the literature is addressed. The relationship between relationship quality, individual symptoms, stage of change, and premature termination from couple therapy was explored for males and for females. Sample data used were collected from 443 couples (886 total clients) at a training clinic for marriage and family therapy at a southeastern university. Measures of attrition were regressed on individual symptoms, relationship quality, and precontemplation and motivation stages of change. Overall findings indicate that low relationship quality significantly predicts higher attrition for females and lower attrition for males based on therapist rating. Low relationship quality also significantly predicted lower therapy completion based on treatment length for females. Possible explanations for findings are described, and implications of findings for future research and therapy practice are discussed.

Acknowledgments

I would like to thank Dr. Scott Ketring for his support and guidance throughout this Master's thesis and throughout my time in this program. He is a great mentor, and I have learned so much during my time at Auburn. I would also like to thank my committee members, Dr. Stephen Erath and Dr. Amy Rauer, who have gone above and beyond in this process. Their support and assistance has been exceptional. My committee has been incredibly patient and I appreciate their guidance both in this thesis in particular and in the process of research in general. Also, thank you Kim Gregson, Laura Dickerson, and Teresa Goodman for reading my thesis and helping to correct mistakes.

I am always thankful to God, because I believe that it is by humble reliance upon His faithfulness that I persevere in anything, and He is patient and gracious to me when I am neither of those things. I would like to thank my friends and family for their countless prayers and pep talks. My parents are wonderfully supportive and I appreciate their encouragement in this endeavor. My siblings have continually made me laugh during this process, especially when I most needed it, and for that I am grateful. I am truly blessed with a amazing family. I appreciate my friends, who have continually encouraged me as well, and who have taken good care of me. Without this exceptional support I would have lit my thesis on fire a long time ago and dropped out of grad school, so thank you all!

Table of Contents

Abstract ii

Acknowledgments iii

List of Tables vi

Introduction 1

Review of Literature 4

Defining Dropout 5

Marriage and Family Therapy Modalities and Treatment Length 7

Couple Relationship 9

Individual Symptoms 10

Interaction of Individual and Couple Symptoms 12

Stage of Change 13

Client Demographic Information 15

Present Study 17

Methods 20

Participants 20

Procedure 21

Measures 22

Plan of Analysis 25

Results 27

Missing Data 27
Descriptives 30
Means Comparison 30
Linear Regression Analyses with Number of Sessions as the Outcome Variable 30
Logistic Regression Analyses with Therapist Rating as the Outcome Variable 32
Additional Analyses 33
Discussion 36
Importance of Pre-Therapy Couple Relationship Quality 37
Pre-Therapy Symptom Distress and Therapist Factors 38
Demographic Variables: Age and Education as Control Variables 39
Family Systems Theory and Nonfindings 39
Strengths of the Study 42
Limitations and Future Directions 43
Conclusion 49
References 51
Appendices 63
Appendix 1 64
Appendix 2 78

List of Tables

Table 1 Demographics of males and females in committed relationships 64

Table 2 Person mean substitution numbers and percentages for each scale 65

Table 3 Descriptive statistics 66

Table 4 Frequency distribution for number of sessions 67

Table 5 Correlations 68

Table 6 Paired-sample t-tests 69

Table 7 Summary of linear regression for variables predicting therapy completion for males (capped at 6 sessions) 70

Table 8 Summary of linear regression for variables predicting therapy completion for females (capped at 6 sessions) 71

Table 9 Summary of linear regression for variables predicting therapy completion for males (capped at 6 sessions) with clients seen by therapist 606 removed 72

Table 10 Summary of linear regression for variables predicting therapy completion for females (capped at 6 sessions) with clients seen by therapist 606 removed 73

Table 11 Logistic regression with the therapist rating as outcome 74

Table 12 Logistic regression with the therapist rating as outcome with clients seen by therapist 606 removed 75

Table 13 Logistic regression predicting therapy attrition between first-session dropouts and all other clients 76

Table 14 Logistic regression models predicting therapy attrition between first-session and later dropouts 77

Introduction

The field of psychotherapy has made considerable gains in the last few decades in many areas, including increasing efficacy (e.g. Lambert & Ogles, 2004; Wampold 2001; Wampold, 2007), decreasing stigma (Slife, Williams, & Barlow, 2001), and growing diversity (APA, Office of Ethnic Minority Affairs, 2008). Likewise, the field of marriage and family therapy has grown, with a large increase in practitioners (Sturkie & Bergen, 2001). It has also been shown to be cost-effective, with low dropout rates and recidivism rates (Crane & Payne, 2011; Moore, Hamilton, Crane, & Fawcett, 2011) and has a positive impact on 70% of couples receiving treatment (Lebow, Chambers, Christensen, & Johnson, 2012). Research has indicated that the field of marriage and family therapy is making considerable progress as it evolves (West, Hinton, Grames, & Adams, 2013).

However, there is still a recognizable lack of research in marriage and family therapy. In order for the field to continue to progress, there has been a call to include more emphasis on the science of marriage and family therapy in MFT education and integration of research with therapy (Hodgson, Johnson, Ketring, Wampler, & Lamson, 2005; Simon, 2006; Sprenkle, 2003). This includes a need for research on attrition; therapeutic dropouts remain problematic, with most authors reporting thirty to sixty percent of clients terminating therapy prematurely (e.g. Swift & Greenberg, 2012; Wierzbicki & Pekarik, 1993). Understanding attrition rates of clients in couple therapy is pertinent to providing effective treatment, because early attrition may indicate ineffective services. Clients who drop out of therapy may be less likely to seek future

assistance for relationship or mental health problems, further increasing hopelessness and precluding problem resolution (Reis & Brown, 1999; 2006). Some clients continuously drop out of therapy which suggests that client factors significantly influence premature termination (Bischoff & Sprenkle, 1993). However, client factors have been neglected due to difficulty in pinpointing specific factors that are continually important and a general bias towards examining therapist factors (Keijsers, Kampman, & Hoogduin, 2001).

Although attrition is recognized as a problem, very little is known about attrition factors in couple therapy (Masi, Miller, & Olson, 2003). Meta analyses have shown that generally in studies of dropout from therapy, couples and families are excluded from analyses (Swift & Greenberg, 2012; Wierzbicki & Pekarik, 1993). Many of these studies have indicated that clients seeking couple therapy are likely to differ from client seeking individual therapy (for example, especially in reason for initiating therapy). Furthermore, if couples were included in samples, analyses did not differentiate between couples and individuals, but rather couples were analyzed as individuals. Many of the studies on attrition from couple therapy also focus on drug or alcohol abuse treatment, which represents a narrow type of problem and cannot be generalized to a typical clinical population of couples.

Therefore, premature termination needs to be specifically addressed for clients of marriage and family therapists, as the objective of therapy can differ from that of traditional psychotherapy. Family systems theory suggests that the patterns of interactions between partners are necessary to target in therapy, and that they aid in understanding individual problems. Marriage and family therapy modalities, or theoretical approaches, such as structural family therapy, solution-focused therapy, and emotion-focused couple's therapy place more emphasis on examining the process of interactions rather than solely content (Nichols, 2010). The process

of interactions may include tone of voice, body language, or physical positioning of partners, whereas content is what is actually stated. Many of these factors in therapy are interactive processes between the partners. Couple therapy focuses on the individual responses of both partners, as well as the interplay of the process of communication between the partners.

Current research likewise indicates that the individual and couple factors influence partners in therapy; for example, Kilman and Vendemia (2013) found that couples' marital distress was related to individual symptoms. Additionally, relationship quality plays a role and may interact with individual symptoms. For example, Whisman and Uebelacker (2009) suggest that the relationship between depressive symptoms and marital discord is bidirectional. Important to these individual symptoms and relationship quality difficulties is motivation to change, including the client's perception of their symptoms. Partners' motivation to change and perception of their symptoms influence attrition in couple therapy as well, particularly if they do not believe that they need to change anything (Callaghan et al., 2005; Scott, 2004). This is a complication especially in couple therapy, as several couples fail to seek therapy until symptoms are severe (Doss, Atkins, & Christensen, 2003).

Overall, this study examines factors affecting dropout rates specifically for males and females in couple therapy. The models used in couple therapy rely on family systems theory, which views individual symptoms and motivation to change as being related to couple functioning and the relationship. Therefore, in considering attrition rates in couple therapy, it is important to examine individual symptoms, relationship quality, and motivation to change. Furthermore, because individual symptoms and relationship quality have been shown to be mutually influential, it is important to also examine an interaction between the two.

Review of Literature

Despite the fact that there have been two meta-analyses analyzing factors affecting therapeutic dropout rates in the past two decades (Swift & Greenberg, 2012; Wierzbicki & Pekarik 1993), the focus has been entirely on individual clients receiving individual-focused treatment. There is a paucity of research related to attrition in couple therapy. It has traditionally been difficult to pinpoint individual factors affecting dropout rate, but efforts to understand factors that affect dropout rates are needed. (Masi et al., 2003; Swift, Greenberg, Whipple, & Kominiak, 2012). Otherwise, therapy dropout rates may continue to remain elevated. Understanding important factors in attrition rates will give clinicians a better understanding of factors that might impede therapy and will allow them to be able to address those factors.

Recently, researchers have examined differences between clients seeking individual therapy and clients seeking couple therapy in therapeutic outcomes, particularly in therapeutic alliance (Bartle-Haring, Glebova, Gangamma, Grafsky, & Delaney, 2012; Knerr et al., 2011). Because there are differences in these clients, differences between couple therapy and individual therapy attrition may exist, making it important to study couple therapy rather than just generalize from studies of individual therapy. Although research describing attrition within individual therapy is helpful, it is still unclear if it translates directly to couples receiving therapy services. Additionally, although some suggest there is not a statistically significant difference in attrition rates between couples, individuals, and families, (e.g. Masi et al., 2003; Williams, Ketring, & Salts, 2005), this report may be limited by studying clients in the same clinic. Both

of these studies in particular compared clients in the same clinical setting, so the therapy modality used may be a factor that can also account for this similarity. Furthermore, some studies have found a difference between individual therapy and couple therapy and outcomes (e.g., DeJong, Broadbent, and Schmidt, 2012). Therefore, studies on couples and attrition rates are examined primarily in this review.

The purpose of the present study was to examine relationship quality, individual symptoms, motivation to change in therapy, and demographic variables including age and education in relation to dropout specifically from couple therapy. This literature review begins by defining dropouts and the traditional difficulty with the definition. Attrition and couple therapy are next examined in the context of marriage and family therapy, especially focusing on general treatment length, as this differs from typical individual psychotherapy. Next, relationship quality and attrition and individual symptoms and attrition are reviewed, followed by an examination of the interaction between individual symptoms and relationship quality. Stage of change, indicating the person's readiness to make changes related to the problem that is the focus of therapy, is then reviewed, especially in how it relates to attitude toward therapy and motivation to change. Demographic variables, including age and education are then discussed. Finally, the present study and hypotheses are explained.

Defining Dropout

Attrition has been defined multiple ways in the literature, and there has not been agreement on how it should be defined, or upon whose report the definition should be based. Swift, Callahan, and Levine (2009) indicate that this lack of agreement is a difficulty in producing effective attrition research in general. The definition of premature termination is important to understand, as Wierzbicki and Pekarik (1993) found that attrition rates differed as a

function of the definition used to examine dropout rates. When dropout was defined by clients' non-attendance for a scheduled session (and never returned), attrition rates were lower when compared with dropout defined by either therapist judgment or the number of sessions the clients attended. Swift and Greenberg (2012) found a similar result in their meta-analysis.

Each method of measuring attrition comes with strengths and weaknesses. When using therapist judgment, it can be argued that the therapist knows whether or not the termination was a mutual termination in the sense that the therapist and client have talked about terminating therapy. However, the therapist may not exactly understand the client intentions or whether the client planned to return. The therapist may also believe that the client was satisfied with treatment progress and treatment when they are not, skewing their ratings of agreement. In previous research qualitative methods of classification for therapy dropout (Greenspan & Kulish, 1985; Reis & Brown, 2006) have focused on using therapist reports of planned versus unplanned termination. Some combined client dropout rate by two factors, such as therapist reporting and a specific number of sessions (Masi et al., 2003; Pekarik, 1992).

Swift and Greenberg (2012) found varying definitions of dropout used in their meta-analysis; therapist judgment accounted for the definition used in 63 of 669 studies, failure to complete therapy accounted for 314, and using a certain number of sessions as the definition accounted for 131. Failure to complete therapy was generally based on failing to complete treatment protocol, which is a more specific way of indicating premature termination based on non-completion of the required number of sessions for that protocol. Other studies have also defined dropouts by a specific number of sessions. For example, McCabe (2002) considered families who did not return after completing the intake or one session beyond intake to be dropouts. Huppert, Barlow, Gorman, Shear, and Woods (2006) measured dropouts as those who

completed five or fewer sessions. Like these examples, several have used a specific number of sessions to define dropouts, based on the type of treatment and how long effective treatment is expected to take.

Each of these definitions of premature termination arguably have their merits, but using only one method of examining attrition does not appear to be sufficient. Therapist judgment is a subjective measurement of attrition, but it has also been suggested to be one of the best measures (Tambling & Johnson, 2008; Wierzbicki & Pekarik, 1993). Treatment length has also been widely used, but a limitation of this definition is that the number of sessions used to indicate attrition varies by researcher (Swift, Callahan, & Levine, 2009). Multiple indicators are therefore used in order to account for multiple definitions of attrition. The suggested multi-method definition of drop-out used by Masi et al. (2003), which incorporates therapist definition and specific number of sessions, is the most useful measure of attrition. These two methods should address the additional problem of early versus late drop-outs.

Marriage and Family Therapy Modalities and Treatment Length

In examining attrition rates in couple therapy, it is important to understand couple therapy in the context of marriage and family therapy modalities. Family systems theory is a theoretical model focused on the complex relationships within the family, which underlies most contemporary family therapy (Broderick, 1993; Nichols, 2010). This includes the couple relationship and extends to the practice of marriage and family therapy with couples. From the context of family systems theory, the emphasis in therapy is on the process of interactions, rather than solely the content of them (e.g. Nichols, 2010). Thus, in couple therapy, more than solely individual symptoms must be considered; couple relationship quality, or congruence between couples, must be considered as well. It has been difficult to understand factors affecting

premature termination in the context of couple therapy because these individual symptoms andrelationship quality often interact (Beach, Katz, Kim, & Brody, 2003; Gordon, Friedman, Miller, & Gaertner, 2005; Townsend, Miller, & Guo, 2001).

Attrition rates need to be examined from the context of marriage and family therapy, because there is literature that suggests a difference between attrition rates in MFT and in individual psychotherapy. Several studies report lower attrition rates in marriage and family therapy for couples than in individual psychotherapy; Moore et al. (2011) found that marriage and family therapists had lower attrition and recidivism rates than medical doctors, nurses, psychologists, social workers, and professional counselors. Finding marriage and family therapists have a lower attrition rate is not uncommon (Crane & Payne, 2011; Hamilton, Moore, Crane, & Payne, 2011).

Some studies suggest that even in looking at specific types of problems, family therapy dropout rates may be lower than individual counseling or psychology dropout rates. For example, in one review of literature for clients who were diagnosed with anorexia nervosa, the dropout rates ranged from 4.8% (for family therapy) to 100% (for dietary advice), and generally the range was 20-40%; family therapy accounted for the lowest dropout rate (DeJong et al., 2012). Although dropout rates for marriage and family therapy have been shown to be lower than other forms of psychotherapy, premature termination is a pertinent issue; dropout rates may have declined some in past years, but still remain problematic to the field of psychotherapy as a whole (Swift & Greenberg, 2012).

Marriage and family therapy modalities are less manualized than many individual psychotherapy treatments, lending to greater variability in treatment length (Larner, 2004). This is also why it has traditionally been more difficult to identify a consistent definition of attrition

based on treatment length in couple therapy. Overall, though, many of the different modalities of therapy in the field of marriage and family therapy are designed to be brief; this is one general difference between individual psychotherapy and many modalities of marriage and family therapy (Budman & Gurman, 2002). The length of most family therapy modalities used are designed to be shorter than most clinical or counseling psychology modalities, so examining dropouts in couple therapy from a marriage and family therapy perspective is different than examining dropouts in general in individual psychotherapy from a counseling or clinical psychology perspective. For example, solution-focused, strategic, and systemic therapy may last between five and ten sessions (Gladding, 2002). Zimmerman, Prest, and Wetzel (2003) examined couples in a six-week solution-focused therapy setting. Some studies of emotion-focused couple therapy have found significant change with as few as 8 sessions (Johnson & Greenberg, 1985). Additionally, when specifically examining couple therapy, findings showed that it is a relatively brief intervention necessitating an average of about five sessions (Crane & Christenson, 2012).

Couple Relationship

Attrition in couple therapy depends on the dyadic relationship. In individual therapy, attrition is related solely to a factor of the individual or their relationship with the therapist. In couple therapy, the factors that may affect attrition grow exponentially, as there are several relationships, individual factors, and dyadic factors that have the potential to affect attrition. More studies of pre-therapy client symptomatology focus on therapeutic outcomes in general than on attrition rates specifically; this is especially true of therapeutic alliance. Most studies that have examined couple therapy outcomes are focused on the complex relationship between the therapist and clients (e.g. Anderson & Johnson, 2010; Flückiger, Del Re, Wampold,

Symonds, & Horvath 2012; Knoblock-Fedders, Pinsof, & Mann, 2004; 2007). Studies that have examined pre-therapy relationship quality and attrition rates may not examine couple therapy in the broader sense, but rather a specific modality or population (e.g., Bartle-Haring, Glebova, & Meyer, 2007).

Couples are generally expected to report to therapy expressing low relationship quality; it is generally recognized that many couples in particular wait to go to therapy until symptoms are severe (Doss et al., 2003). The dyadic relationship and pre-therapy couple distress is important in determining attrition rates in couple therapy, and should be examined, especially because therapeutic outcomes in couple therapy for relationship distress may be different than individual therapy. Barbato and D'Avanzo (2008) suggest that no difference was found in initial symptomatology in individual and couple therapy for couple relationship problems, but that in the couple therapy group, relationship distress was significantly reduced over the course of treatment. Similarly, Emanuels-Zuurveen and Emmelkamp (1996) found that although depressive symptoms of individual partners improved in both individual and couple therapy, the marital relationship improved more in couple therapy. This is not surprising, as couple therapy specifically targets the couple relationship. Therefore, relationship quality needs to be considered in regards to attrition. Although attrition has not been as widely studied in relation to relationship quality, because more negative outcomes are generally associated with low dyadic adjustment, it is possible that these clients may also be more likely to terminate therapy before completing expressed goals.

Individual Symptoms

Within family systems theory, the focus of therapy is on both partners as a couple and individually, so individual symptoms should also be considered in examining predictors of

attrition. The focus of most studies of attrition and couple therapy come from the drug and alcohol abuse literature, highlighting that many couples seek therapy for a problem related to individual symptoms of one partner. Extrapolating from drug and alcohol treatment is limiting, and there are other studies which highlight a need to evaluate individual symptoms. Allgood and Crane (1991) found that having a presenting problem related to only one of the partners was a significant predictor of who would drop out from therapy. Therefore, understanding individual symptoms, especially of the “identified patient,” has been helpful in understanding attrition from couple therapy.

Not only are pre-therapy individual symptoms important in understanding attrition, but the level of those symptoms is important. Klein, Stone, Hicks, and Pritchard (2003) found that individual clients who rated their overall functioning as being lower (those who had a higher score on the Outcome Questionnaire) were more likely to terminate therapy services prematurely; in this sample, premature termination was defined as failing to notify the clinician of plans to discontinue services. In this sample, they also found evidence that self-reported information was important in predicting attrition, finding self-reports of progress more indicative of progress than counselor ratings, as results indicated that both informers and non-informers improved through therapy. Whereas counselors may not recognize this improvement in clients who terminated prematurely without notice, the researchers suggest that it is likely that these clients who dropout experience some cathartic relief within the first few sessions and decide to terminate.

Similarly, others have found that pre-treatment functioning can affect post-treatment psychosocial functioning (e.g. Kim, Zane, & Blozis, 2012), so higher levels of pre-treatment negative symptoms may predict higher attrition rates. Several studies examine a very small

range of diagnoses or very specific problems, and in general, those studies also find that higher levels of pre-treatment symptomatology result in poorer outcomes and higher attrition rates (Swift & Greenberg, 2012). Additionally, clients seeking therapy for specific problems may be more likely to drop out early; predictors of dropout rate, even in individual studies, can cover a wide range of different client factors and symptoms. In a study examining therapy dropouts, MacNair and Corazzini (1994) suggest that overall, it may be the initial symptoms that a client was experiencing that was predictive of who would later drop out of therapy.

Interaction of Individual and Couple Symptoms

There is evidence to suggest that changes in couple symptoms and individual symptoms are related. Kilman and Vendemia (2013) found that couples' marital distress was related to individual distress in a sample of 244 couples in a private clinic setting. And, improvements in the couple relationship may serve as a buffer for individual symptoms or even be related to positive changes in individual symptoms (e.g. Lebow et al., 2012). Thus, in effectively examining dropout rates in couple therapy, both individual symptoms and relationship quality need to be examined.

Lebow et al. (2012) found that as marital satisfaction changed, so did the measures of psychological symptoms and mental health index used; treating marital discord was associated with statistically significant improvements in individual depression. Additionally, couples in treatment groups experienced clinically significant reductions in couple distress, and many also showed improvement in both couple and individual symptomatology (Lebow et al., 2012; MacIntosh & Johnson, 2008). Others have also found that marital distress mediates the relationship between marital attributions and depressive symptoms (Gordon, Friedman, Miller, & Gaertner, 2005). This is a topic that is growing in the literature, especially in relation to

depressive symptomatology and factors like family functioning (Lunblad & Hansson, 2005) or dyadic adjustment (Tilden, Gude, Hoffart, & Sexton, 2010). Although these studies do not focus on premature termination directly, they do suggest that an interaction of individual and relational symptoms might affect premature termination.

Stages of Change

In addition to examining individual symptoms and marital discord in therapy, researchers are beginning to evaluate client characteristics which influence therapy participation and impact therapy longevity, including client motivation to change. Before a client even comes into therapy, their motivation to change may preclude them from really being invested in treatment, especially if the client is not the primary seeker for therapy. Additionally, expectations for therapy success influences client motivation for both seeking and continuing treatment. Therefore, the client's understanding of therapy before attendance and the client's motivation are important factors in relation to dropout rates. Prochaska and DiClemente (1983) presented a transtheoretical model indicating five stages of change in therapy: precontemplation, contemplation, preparation, action, and maintenance. Each of these stages pertains to the amount of motivation for making changes that the person shows. Precontemplation is characterized by the client having no intention to make behavior changes in the foreseeable future and not seeing their behavior as problematic. Contemplation is characterized by actively considering change, preparation involves actively planning to make the specified change, action involves directly modifying the identified problem behavior, and maintenance is involved in sustaining the change.

Precontemplation appears to be the most well-supported stage of change in the literature. Callaghan et al. (2005) examined a stages-of-change construct as a predictor of therapy dropout

using the University of Rhode Island Change Assessment (URICA). They used hierarchical multiple regression in order to determine which subscales were significantly predictive of dropouts. They found only one of the four subscales, precontemplation, was significantly predictive of dropout; the other subscales of the URICA are contemplation, action, and maintenance. Logistic regression analyses indicated that the precontemplation subscale is significantly associated with dropout rates, over and above all of the other subscales; in fact, when precontemplation was entered into the model with any other single subscale, the fit improved.

Recent findings suggest support for the influence of other stages of change in addition to precontemplation. In a factor analysis of the different stages of change, Tambling and Johnson (2012) found support for two of five factors from the transtheoretical model presented by Prochaska and DiClemente (1983); they found support for precontemplation and action. It has likewise been found that there are not differences in the contemplation, action, and maintenance subscales, and that distinguishing between the stages is of no practical value (Derisley & Reynolds, 2002; Rochlen, Rude, & Barón, 2005). Furthermore, clients may score high on several subscales simultaneously, and high scores on these three subscales simultaneously is one of the most likely client profiles. Therefore, Derisley and Reynolds (2002) suggested that these three subscales could be used to form a composite score, "motivation." Whereas precontemplation indicates that the client is not thinking about making any changes, motivation indicates that the client is considering change; this composite variable has received further support in terms of validity (Porter & Ketring, 2011).

It is also noteworthy that in couple therapy, the initial motivation to change for each partner may be discordant, complicating therapeutic processes and lending to premature

termination (Tambling & Johnson, 2008). For example, although precontemplation is generally indicated as a particularly influential stage of change, there is evidence that this may be especially salient for males, but not necessarily as important for females. This may be due to differences in how males and females enter therapy; Porter and Ketring (2011) found that females entered therapy with more motivation to change than did males, and although no variables were associated with therapeutic alliance for females, being in the precontemplation stage of change and symptom distress were both associated with therapeutic alliance for males. This seems especially likely for partners who tend to think that they do not have a problem, as reflected by the precontemplation stage of change; individuals in the precontemplation stage of change believe that the problem lies outside of them, and that there are not any changes that they need to make. These clients may be more likely to blame their partner or to refuse to participate in therapy. Therefore, it is important to examine motivation to change for both males and for females.

Client Demographic Information

Each of the study variables previously explained differs in terms of demographic information, so it is imperative to examine demographic information in relation to attrition as well. However, although client demographic variables are considered to be important in understanding client outcomes, studies examining client factors generally indicate varied and sometimes conflicting results. Whereas understanding of the combined impacts of demographic variables has been limited, it is a complex relationship (Barrett, Chua, Crits-Christoph, Gibbons, & Thompson, 2008).

Client demographic variables have received less attention in the literature pertaining to couple therapy than to individual therapy, and the results in relation to couple therapy are

particularly conflicting. Conversely, there have been some large meta-analyses of individual psychotherapy dropout rates that focus on particularly on demographic variables (Swift & Greenberg, 2012; Wierzbicki & Pekarik, 1993). For instance, Wierzbicki and Pekarik (1993) found that three demographic variables were significantly related to dropout rates, including racial status, education, and income; minority, less-educated, and lower-income groups had higher dropout rates. Swift and Greenberg (2012) followed up on this study, using a series of meta-analyses and meta-regressions to examine 669 studies and 83,834 clients. They found that the only demographic variables with significant effect sizes comparing dropouts to completers were age and education, with dropouts being on average younger in age and less educated.

Though researchers have indicated that age and education are related to attrition, reasons as to why they might be related are not given much attention. It is possible that education is related to attrition because of a relationship to socioeconomic status; clients with lower socioeconomic status may be more likely to drop out due to financial reasons, or due to unmet expectations about rapid effectiveness of therapy (Baekeland & Lundwall, 1975; Wierzbicki & Pekarik, 1993). Demographic variables may also be related to how the client views the therapist and the connection the client feels to the therapist (e.g. Lambert & Barley, 2001). In examining age, Robiner and Storandt (1983) suggested that client age may play a role in how the client views the therapist, though they also explain that results for this were inconclusive. In this study, age similarity between client and therapist was not related to improved outcomes, but age was related to whether the clients viewed the therapist as empathic and helpful. Due to evidence to particularly support age and education in individual therapy, they will be examined as control variables in relation to couple therapy in the present study.

Present Study

This study seeks to add to the literature on client factors affecting dropout rates from couple therapy by examining the relationship between pre-therapy couple and individual symptoms and stage of change and premature termination. Attrition factors pertaining to individual clients have been widely reviewed, but there is still a general lack in the literature examining attrition from couple therapy. Factors in relation to the individual clients, couple relationship, and pre-therapy motivation to change are examined in order to add to the understanding of attrition from couple therapy in a marriage and family therapy context.

Training Clinic. The present study examines attrition from MFT specifically in a MFT training clinic, which is arguably going to differ from general practice (Callahan, Aubuchon-Endsley, Borja, & Swift, 2009). This may especially be true due to training clinics including features such as cameras and one-way mirrors, which are likely to affect clients' initial comfort level and may result in premature termination. However, Ward and McCollum (2005) also indicate that there are several benefits to be considered as well, as training clinics provide invaluable opportunities to understand clinical issues. Specifically, they point out the research focus of training clinics means that training clinics have on-site researchers who can systemically conduct evaluations and that clients are more open to research because they understand that they are coming to an academic training clinic where research is emphasized. Furthermore, they also suggest that though cameras and one-way mirrors may make clients more nervous, they are also important resources in research. Most clients adapt quickly to their presence and are made aware of the arrangement of the training clinic before beginning therapy.

Although there are plausible differences between general clinical clients and training clinic clients, more research is needed in order to understand these differences. For example, Clark, Robertson, Keen, and Cole (2011) suggest that in a training clinic setting, attrition may be particularly affected by transfers (e.g. when therapists complete training and leave, there was a higher rate of transfer than in other clinical settings); this is expected to differ from general clinics, as transfer rates are generally reported to be higher in training clinics. Therefore, the present study recognizes the limits of the generalizability of the sample to be used, but also considers understanding attrition in training clinics valuable.

Gender and attrition. In order to avoid violating assumptions of normality, specifically independence, in regression analyses, males and females will be examined separately, because, as the previous review suggests, couples influence each other. Additionally, males and females may report differently on some of these topics; for example, Knoblock-Fedders et al. (2004, 2007) found differences in males and females in outcomes in relation to therapeutic alliance. It is important to evaluate male and female outcomes separately in order to see how pre-treatment variables affect each sex. Moreover, many studies have examined partners in therapy by separating genders and examining outcomes individually (Anker, Owen, Duncan, & Sparks, 2010; Bartle-Haring et al., 2012; Knerr et al., 2011). Following the extant literature, the present study focused on exploring direct relationships between these variables and attrition for males and females separately.

Research Hypotheses. Based on this review of the literature, the following hypotheses were developed:

1. Higher levels of pre-therapy symptom distress will be related to higher termination rates for males and females (Klein, Stone, Hicks, & Pritchard, 2003; Swift & Greenberg, 2012).
2. Higher levels of pre-therapy marital discord will be related to higher termination rates for males and females (e.g. Lebow et al., 2012).
3. Higher precontemplation (lower stage of change) will be related to higher termination rates for males and females (Callaghan et al., 2005).
4. Higher rates of individual symptoms and poorer relationship quality will be related to higher attrition rates for males and for females (Kilman & Vendemia, 2013; Lebow et al., 2012).

Methods

Data were collected from the Auburn University Marriage and Family Therapy Center on the campus of Auburn University in Auburn, Alabama. The program is an accredited program by the Commission on Accreditation for Marriage and Family Therapy Education (COAMFTE), providing services to residents of east Alabama.

Participants

The participants consisted of married and non-married couples in heterosexual partnerships who attended therapy at the Auburn University Marriage and Family Therapy Center (AUMFTC). These couples attended therapy from 2002 to 2011 for a variety of reasons pertaining to relationship counseling. Three primary categories for treatment are communication problems, affairs, and mental health issues. Four hundred and forty-three couples began therapy at AUMFTC during the sampling time frame; 274 couples completed at least four sessions of therapy and all paperwork for the first and fourth sessions (62%). For the remaining couples, 75 attended only one session (17%), and 94 couples attended more than one but less than four sessions (21%). Also, of the original 443 couples in the study, 118 (26.6%) self-reported being in a "committed relationship," 296 (66.8%) self-reported being married, and 29 (6.5%) self-reported being separated.

The age range for the total sample was18 to 78, with a mean of 31.7 for males and 29.7 for females. Participants reported their race, income, and education level; 71% of males and 73% of females reported their race as White, and 10% of males and 11% of females were African

American. The reported annual income for this sample ranged from $20,000 to $40,000, with males reporting $26,000 and females reporting $24,000 on average. Forty-nine males (39.5%) and 24 females (23.6%) reported graduating from high school, and 24 males (19.4%) and 45 females (36.3%) reported receiving Bachelor's degrees.

Sixty-four master's level therapists were also included in this study; each of these therapists were in training in the Auburn University Marriage and Family Therapy program working under three full-time AAMFT approved supervisors and supervisors-in-training who individually supervised the therapists during their training. The cases are fairly equally dispersed among these student therapists, with only one exception. In examining the descriptive statistics of the frequency of clients assigned to each therapist, the average number of couples is 7 (6.89), and the standard deviation is 4.18, with a minimum of 1 and a maximum of 30. Whereas the majority of therapists have a caseload of couples that is within one standard deviation of the mean, there are 7 cases that fell within 2 standard deviations of the mean and one more extreme outlier. Four therapists had less than 3 couples, and there are four therapists that had more than 11 clients, but less than 15. One therapist (ID 606) had 30 couples, so a sensitivity analysis was conducted and is further examined in the results section.

Procedure

Quantitative data were collected from case files from males and who came as a couple for therapy (married, in a committed relationship, or separated) at AUMFTC between January 2002 and December 2011. Before the first session of therapy, all clients received the same intake packet containing self-reported scores from the Demographic Questions, Outcome Questionnaire (OQ-45.2; Lambert et al., 1996), the Revised Dyadic Adjustment Scale (RDAS; Spanier, 1976), and the University of Rhode Island Change Assessment (URICA; McConnaughy, Prochaska, &

Velicer, 1983; McConnaughy, DiClemente, Prochaska, & Velicer, 1989). The questionnaires were paper-and-pen and administered by intern therapists or center staff for clinical assessment purposes, further research, and administrative records. These participants were seen in the clinic by master's level intern therapists, generally weekly.

Measures

Demographic questions. The intake packet for all clients coming to the AUMFTC for therapy includes basic demographic questions that will be used in the analysis. These include questions on gender, race, religion, family of origin, nuclear family, employment, and reasons for attending therapy. For the purpose of this study, the age and education questions are of interest. For age, clients give their age in years. For education, the question is "what is the highest level of education you attained?" with the options: grade school, junior high school, GED, high school, vocational/technical school, associate degree/2 years, bachelor degree, master's degree, or other. They specified what level if "other" was the option they chose. This variable is coded on a scale from 1 to 8, with other being excluded in the analyses if it was not specified. If the client did specify "other," it was included in the appropriate category; out of the clients who chose "other," only 1 client did not specify.

Individual Symptoms. (OQ 45.2). The OQ 45.2 (Lambert et al., 1996) is a 45-item measure including three subscales: Symptom Distress, Interpersonal Relations, and Social Role. The clients completed the OQ 45.2 before the first session, and then every fourth session after; the measure is widely used and was designed to measure client progress throughout treatment. Responses to each individual question are scored on a 5-point Likert-type scale that ranges from 0-4., with 0 indicating lower symptom distress and 4 indicating higher symptom distress. For the entire OQ 45.2 scale, the cutoff is 63; scores above 63 indicate distress of clinical significance

(Beckstead, Hatch, Lambert, Eggett, Goates, & Vermeersch, 2003). The Symptom Distress subscale is comprised of 25 questions used to assess for anxiety and depression. Examples of items in this subscale are: "I feel worthless," "I blame myself for things," and "I feel something is wrong with my mind." The subscale question responses are totaled to provide an overall rating of anxiety and depression. The interpersonal relationships subscale is comprised of 11 questions used to assess for problems with interpersonal relationships. Examples of items in this subscale are: "I am concerned about family troubles," "I have an unfulfilling sex life," and "I am satisfied with my relationships with others." The social role subscale is comprised of 9 questions that are used to assess for dissatisfaction or conflict that a client is experiencing at work, school, and in leisure activities. Examples of items in this subscale are: "I feel stressed at work/school," "I have trouble at work/school because of drinking or drug use," and "I have too many disagreements at work/school." Internal consistency ranges from .70-.91, and .78-.84 from test to re-test (Lambert et al., 1996). Cronbach's alpha in this study is 0.94 for males and 0.94 for females.

Relationship Quality. (RDAS; Busby, Christensen, Crane, & Larson, 1995). The Revised Dyadic Adjustment Scale is a 14-item revised version of Spanier's (1976) 32-item Dyadic Adjustment Scale. There are three subscales: Consensus, Satisfaction, and Cohesion. The ratings for these scales range from zero to five on a Likert-type scale. The Consensus subscale includes six items and measures the partner's agreement on broad issues including as religion, demonstrations of affection, making major decisions, sex relations, conventionality and proper behavior, and career decisions. Scores for these items range from "always disagree" (0) to "always agree" (5). The Satisfaction subscale contains four items which measure the partner's current satisfaction with the relationship, asking about frequency of arguments and stability of

the relationship. These items are range from “all the time” (0) to “never” (5). The Cohesion subscale contains four items to measure the partner’s perception of shared activities and closeness in the relationship. Most of these items range from “never” (0) to “more often” (5) on a six-point Likert-type scale; one item ranges from “never” (0) to “every day” (4) on a five-point Likert-type scale. The score of each of the subscales can also be totaled to obtain an overall marital satisfaction score. The overall range can be from 0 to 69, with lower scores indicative of greater distress in the relationship. Forty-eight is considered to be the clinical cutoff score to distinguish distressed and non-distressed couples (Crane, Middleton, & Bean, 2000). Cronbach’s alpha in this study is 0.87 for males and 0.87 for females.

Stage of Change. The URICA (McConnaughy, Prochaska, & Velicer, 1983; McConnaughy, DiClemente, Prochaska, & Velicer, 1989) is a 32-item, self-report scale that provides information on the stage of change for clients. The measure is comprised of 4 different subscales, which can be scored continuously (e.g. someone could potentially have a high score in each of the stages or a low score in each of the stages). Cronbach’s alpha in this study is 0.78 for males and 0.76 for females.

Precontemplation items include “as far as I’m concerned, I don’t have any problems that need changing” and “I would rather cope with my faults than try to change them.” Contemplation items include “I think I might be ready for some self-improvement” and “I’m hoping that I will be able to understand myself better.” Action items “at times my problem is difficult, but I’m working on it” and “I have started working on my problem but I would like help.” Maintenance items include “I have been successful in working on my problem but I’m not sure I can keep up the effort on my own” and “I’m struggling to prevent myself from having a relapse of my problem.” Scoring for each of the subscales is completed by summing responses

for the items for that subscale. Each question in answered on a Likert-type scale from one through five, one being strongly agree and five being strongly disagree. There are no cutoff scores and the subscales are continuous rather than discrete. For the purposes of this study, the precontemplation subscale was examined, and items indicating the contemplation, action, and maintenance stages of change were combined into a composite score indicating motivation, similar to previous research (Derisley & Reynolds, 2002; Porter & Ketring, 2011).

Attrition. Attrition was examined by number of sessions and by therapist rating of completion of therapy goals. The number of sessions completed was determined based on the client file case notes and billing sheet, where therapists recorded each session completed. The number of sessions completed in this study ranged from 1 to 36.

As another measure of attrition, the therapist rating of client completion of goals was used; the therapist rated the outcome of the case on the case closure form, and these ratings were used as a dichotomous variable for completion or non-completion. The ratings for completion included "mutual termination" and "therapist initiated termination," whereas the ratings for non-completion of goals included "client initiated termination with notice" and "client terminated without notice." Two other categories, "client moved to another city or state" and "client referred to another agency," were excluded in the logistic regression analysis because these cases were unclear about goal completion.

Plan of Analysis

The purpose of the present study is to examine attrition in couple therapy. First, the process of handling missing data for the present study is addressed. Next, descriptive statistics were examined to understand sample characteristics and distributions. Paired-sample t-tests

were conducted to examine gender differences between male and female partners, as suggested by prior studies (e.g. Knobloch-Fedders, Pinsof, & Mann, 2004; 2007).

Linear regression analyses with a variable indicating dropout and completion based on number of sessions, as well as logistic regression analyses with a dichotomous variable of therapist-rated goal completion or dropout are described. Sensitivity analyses of therapist 606 were examined because therapist 606 saw 30 clients (over 5 standard deviations from the mean). Finally, because it has been suggested that there are differences in those who dropout earlier in therapy versus later, some additional analyses are included to examine early versus late dropouts.

Results

Missing Data

A preliminary examination of the data showed that for the scales used in this study one or more questions were left unanswered by both males and females. This is a common problem for self-report questionnaire data collection (Fox-Wasylyshyn & El-Masri, 2005; Roth, Switzer, & Switzer, 1999). On average, half of respondents in one study did not answer one or more questions in the survey used (King, Honaker, Joseph, & Scheve, 2001). Although listwise deletion could have been used to address these missing values, this could result in loss of statistical power and overlooking of differences between cases for which there is some missing data and cases for which there is none (Bennett, 2001). As suggested by others, mean substitution offers a better alternative; mean substitution may not always be considered appropriate, but several researchers indicate that often person mean substitution is appropriate and stronger than item mean substitution (Hawthorn & Elliot, 2005; Raaijmakers, 1999; Roth, Switzer, & Switzer, 1999).

Accordingly, a person mean substitution method was chosen to replace missing item values for scales used in the present study. Internal consistency for the scales were first examined and indicated that items within subscales reliably measure the same constructs. This method assumes for any given case, the score on a missing item is closely related to scores on the remaining items for that particular individual, so an individual's mean subscale value was substituted for any missing item values on that subscale. There is variation on the number of

missing items that are appropriate to replace in a subscale, and based on suggestions in particular to Likert-type scale person mean substitution (Downey & King, 1987; Roth, Switzer, & Switzer, 1999), a conservative approach was taken by replacing values in subscales where only 33% or less of the data was missing. For an overview of initial missing cases, cases in which person mean substitution was employed, and final missing cases, see Table 2.

It is important to note that clients did not consistently leave specific items blank. Also, the cases for which person mean substitution was used were not cases where the paperwork was missing altogether. Furthermore, it was rare to have several substitutions across one client. Finally, t-tests were used in order to examine differences between those who had missing items substituted and those who did not in the total score of each scale, but there was not a significant difference between the two groups.

Descriptives

After completing the person mean substitution for each of the measures, descriptive statistics for each of the variables of interest were examined, including the mean, median, range, standard deviation, and skewness statistics (see Table 3). On average, females in this sample presented to therapy reporting clinically significant individual distress, and males were on average just below the cutoff score (63). On average, both males and females reported clinically significant relationship distress with RDAS scores below the cutoff; RDAS scores below 48 indicate clinically significantly low dyadic adjustment (low relationship quality). The average precontemplation score for males is slightly higher than that for females, although the motivation score for males is slightly lower than that for females. Skewness statistics for most of these variables were acceptable, though race was skewed for both males and females; the majority of the sample is European American.

Mean attendance for clients in this sample was 6.99 sessions, with a range from 1 to 36 sessions (see Table 4). Therapists reported that 26% of clients completed therapy goals, and 63% did not meet therapy goals. Thirteen clients (3%) moved or were referred, and were not considered as dropouts or completers based on therapist rating; thus, they were included them in the group with missing data (along with 34 additional cases (8%) for which there was no rating by the therapist available).

Next, bivariate correlations between variables of interest in the sample were examined (see Table 5). First, the correlations between the measures of attrition and variables of interest were conducted. The variable representing attrition based on number of sessions (capped at 6 sessions) was positively associated with therapist rating (representing dropouts, 0, and completers, 1, based on therapist rating of goal completion) of attrition for males and females. It was also positively associated with education for females. The therapist rating of goal completion was not significantly associated with any other study variables.

Several variables of interest were significantly correlated for males. In examining individual symptoms and motivation to change, it is noteworthy that although individual symptoms for males were not correlated with the precontemplation stage of change, males who reported higher individual symptoms also reported higher levels of motivation to change. Male relationship quality was not significantly associated with either the precontemplation or motivation stages of change or individual symptoms. In examining age and education, higher levels of education were associated with higher precontemplation stage of change scores and action scores for males. More educated males completed more session of therapy. Additionally, older males are more educated and reported higher individual symptoms.

Several variables of interest were also significantly correlated for females. Female individual symptoms were not correlated with the precontemplation stage of change, although females who reported higher individual symptoms reported higher levels of motivation to change. Female relationship quality was not significantly associated with either the precontemplation or motivation stages of change. Individual symptoms and relationship quality were associated for females; females who reported lower relationship quality reported higher individual symptoms. Higher levels of female education were associated with higher female-reported relationship quality and female-reported individual symptoms. More educated females completed more therapy sessions. Female age was not associated with treatment length, but older females reported higher individual symptoms and higher precontemplation scores. There was no association between age and relationship quality for females.

Means Comparison

Paired-sample t-tests were examined on variables of interest for males and females (see Table 6). Paired-sample t-tests indicated that females in this sample reported significantly higher individual distress than did males. Relationship distress was also significantly higher for females than for males; males reported higher dyadic adjustment, indicating less relationship distress. Males reported significantly higher precontemplation stage of change than did females, whereas females reported significantly higher motivation stage of change than did males. For demographic variables, females were more likely to be more educated but have a lower income rating than males. Males were on average 2 years older than females.

Linear Regression Analyses with Number of Sessions as the Outcome Variable

Regression analyses were used in order to examine individual symptoms and relationship quality across number of sessions completed. Based on a review of the literature, the number of

sessions was capped at 6 in this study. It has traditionally been difficult to determine who should be considered a dropout, so two methods were used in order to make a distinction. First, the literature was reviewed in relation to expected numbers of sessions required for completion. In solution-focused therapy, which is one of the primary models used by therapists in the current sample, those who are considered completers in couple therapy finish 5 to 8 sessions (e.g. Gladding, 2002; Zimmerman, Prest, & Wetzel, 1997). As a second approach, a crosstab between therapist rating of dropout and number of sessions attended was conducted, which indicated that a majority (61%) of dropout cases (defined by the therapist) completed 5 sessions or less. Therefore, 6 sessions was used as an estimate for therapy "completion" in the analyses because it is supported by clinical literature (Crane & Christenson, 2012).

The capped number of sessions was regressed on relationship quality, individual symptoms, and stage of change. Education and age were first entered as control variables. In the next model, individual symptoms (OQ score), relationship quality (RDAS score), and the motivation and precontemplation stages of change (URICA composite scores) were entered. In the third model, an interaction term for couple and individual symptoms was entered.

For males, the variables entered did not account for a significant amount of the variance in therapy completion, though some individual variables were significant in the models (see Table 7). In the first model, education and age alone were entered, and education was a significant predictor of treatment length; males who were more educated were likely to attend more sessions ($\beta = 0.12$, $SE = 0.06$, $p < 0.05$). Male education was still the only significant predictor in both the second ($\beta = 0.12$, $SE = 0.06$, $p < 0.05$), and the third models ($\beta = 0.12$, $SE = 0.06$, $p < 0.05$). No other variables were significant in these models.

For females, the first model accounted for marginal variance in therapy completion (R^2 = 0.02, $p < .10$), but the other models did not account for significant variance in therapy completion, though individual variables were again significant (see Table 8). In the first model, education was a significant predictor of treatment length for females ($\beta = 0.13$, $SE = 0.06$ $p < .05$). In the second model, education was only marginally significant, but relationship quality was a significant predictor of treatment length; females who expressed more relationship quality completed more sessions of therapy ($\beta = 0.03$, $SE = 0.02$, $p < .05$). Additionally, individual symptoms were marginally significant. When the interaction term was entered, none of the variables in the model were significant.

Logistic Regression Analyses with Therapist Rating as the Outcome Variable

Logistic regression analyses were fit in order to examine individual and relationship quality in relation to those who prematurely terminated from therapy and those who did not based on therapist rating of completion of goals. The dichotomous dropout and completion variable based on therapist ratings was regressed on relationship quality, individual symptoms, and stage of change for males and for females, separately (see Table 11). For this outcome variable, dropout (based on the therapist rating of not completing goals) is coded as 0 and completion (based on the therapist rating of completing goals) is coded as 1. The variables were entered in the same order as the previous linear regression model. Male-reported couple adjustment is a significant predictor of therapy completion (with an odds ratio of 1.03), controlling for all other predictors. Thus, males who reported higher dyadic adjustment are more likely to complete therapy based on therapist rating of goal completion. Female-reported dyadic adjustment was also a significant predictor of therapy completion (with an odds ratio of 0.97),

controlling for all other predictors. Conversely, females who reported lower dyadic adjustment were more likely to complete therapy based on therapist rating of goal completion.

Additional Analyses

Sensitivity analysis. Therapist 606 saw 30 clients, which was an outlier, so clients that this therapist saw were removed from the sample and results compared to the full sample in order to examine any differences in results. The majority of analyses did not indicate different results in the partial sample compared to the full sample. On average, clients seen by this therapist remained in therapy slightly less than the average for the overall sample (5.43 sessions).

Results from the linear regression did not indicate significant differences from results based on the full sample for males (see Table 9). For females, differences were found (see Table 10). When clients seen by therapist 606 were removed from the sample, the second model accounted for marginal variance in therapy completion ($R^2 = 0.04$, $p < .10$), and individual symptoms were a significant predictor of treatment length ($\beta = 0.03$, $SE = 0.02$, $p < .05$).

The logistic regression models without those clients were also fit and compared to the model with those clients included. However, results indicated that removing clients seen by therapist 606 did not significantly influence results (see Table 12).

Early versus late dropouts. Researchers have suggested that there are differences in clients who terminate therapy prematurely in the initial phase of therapy and later in therapy (Kazdin & Mazurick, 1994; Pekarik, 1992). In order to examine differences in early attrition versus late attrition in this sample, some additional analyses are included.

Early attrition was a variable of consideration when evaluating dropouts. T-tests were conducted to examine differences between clients who dropped out after one session versus clients who completed more than one session for both males and females. Female clients who

attended only one session (*M* = 31.89, *SD* = 10.65) were significantly older than female clients who attended more than one session (*M* = 29.24, *SD* = 7.63); t (97) = -2.46 , *p* = .02). No other study variables for females and none of the study variables for males were significantly different between clients who dropped out after one session and clients who continued therapy past one session.

In order to examine differences in clients who only completed 1 session and clients who continued on in therapy, a logistic regression model was fit. Total number of sessions was recoded into a dichotomous variable representing those who only completed 1 therapy session (0) and those who completed more than 1 session of therapy (1). This dichotomous variable was then regressed on couple symptom, individual symptoms, and motivation to change for males and for females, separately (see Table 13). The variables were entered in the same order as the previous regression models. Female age is a marginally significant predictor of therapy completion (with an odds ratio of -.034), controlling for all other predictors and the interaction term. Thus, older females are less likely complete more therapy.

Finally, in order to examine differences between clients who dropped out after 1 session and clients who dropped out between 2 and 5 sessions (considered to be later dropouts for these analyses), independent-samples t-tests were conducted. Results from these t-tests indicated that on average, females who dropped out after only one session (*M* = 31.89, *SD* = 10.65) were older than females who drop out between two and five sessions (*M* = 28.53, *SD* = 6.72); t (97) = -2.46 , *p*=.02). Male income was marginally different between one-session dropouts (*M* = 6.54, *SD* = 2.95) and two-to-five-session dropouts (*M* = 5.81, *SD* = 2.76); t (122) = -1.74, *p* = .08).

In order to further examine differences between 1 session dropouts and 2 to 5 session dropouts, records for clients who completed 5 sessions or less were selected. A dichotomous

variable was created representing those who only completed 1 session of therapy and those who completed 2 to 5 sessions of therapy. This dichotomous completion variable was regressed on relationship quality and individual symptoms for males and for females (see Table 14). The variables were entered in the same order as the previous regression models. Female age is a significant predictor of therapy completion (with an odds ratio of -.047), controlling for all other predictors and the interaction term. Thus, older females were less likely to complete therapy.

Discussion

Attrition is a widespread problem in the field of psychotherapy as a whole and needs to be understood in order to reduce ineffectual use of psychotherapy services (Masi et al., 2003). Premature termination is related to several poor outcomes for clients, including wasted financial resources, ineffective therapy "doses," and negative overutilization of services by clients who chronically drop out (Barrett et al., 2008; Reis & Brown, 2006). Numerous researchers have also focused on negative outcomes for therapists, such as client dropouts negatively affecting therapist self-evaluation (Barrett et al., 2008; Klein et al., 2003; Reis & Brown, 2006). Although research has shown that there are negative implications of attrition, factors related to premature termination specifically from couple therapy have not been well understood. Examining factors that contribute to attrition specifically from couple therapy is imperative for the field to continue to progress and to be able to effectively help couples experiencing individual or relationship distress.

Generally, the literature has indicated that symptoms experienced by individuals and by couples were both major factors in therapeutic outcomes in couple therapy (Kilmann & Vendemia, 2013; Lebow et al., 2013). Furthermore, stage of change may also play a role in therapeutic outcomes and attrition (Tambling & Johnson, 2008). Although these have been shown to be influential factors in individual psychotherapy, couple therapy has not received nearly the same attention in the literature. However, recent research has indicated that there are likely differences between clients seeking individual therapy and clients seeking couple therapy (Knerr et al., 2011). Therefore, it was imperative to understand attrition in clients seeking couple

therapy, especially due to differences in couple therapy and individual therapy. This study examined individual symptoms and couple relationship quality in relation to attrition rates, as well as the motivation and precontemplation stages of change, and client demographic variables.

Results overall indicated support for relationship quality predicting premature termination defined by therapist-reported goal completion for both males and females, as well as premature termination defined by number of sessions for females. However, results overall also indicated minimal support for pre-therapy individual symptoms and motivation to change as significant predictors of client dropout or therapist-reported dropout. Additionally, there were differences in pre-therapy reporting of symptoms between males and females, which has previously been indicative of difficulty in therapeutic outcomes (Bartle-Haring et al., 2012). Results overall indicated minimal support for hypotheses. One possibility addressed is the presence of two competing phenomena in couple therapy. It may be that couples who initiate therapy at a higher level of distress will need more treatment and will thus remain in treatment longer. Conversely, it may be that couples who initiate therapy at higher levels of distress will not complete therapy, but rather attend for a shorter period of time just to be able to say that they "tried" therapy, with little intention to continue in therapy or to try to make changes. Therefore, a dyadic explanation of nonfindings in the context of family systems theory is addressed, as well as future directions to continue to improve the understanding of these phenomena.

Importance of Pre-Therapy Couple Relationship Quality

Some support was provided for the second hypothesis (higher levels of pre-therapy marital discord will be related to higher termination rates) for males based on therapist-rated goal completion; males who reported lower relationship quality were less likely to complete therapy goals according to the therapist. Similarly, based on treatment length, females reporting higher

relationship quality were more likely to complete therapy. This association was similar to previous findings, which have suggested that the two were related (Gordon, Friedman, Miller, & Gaertner, 2005; Lebow et al., 2012; Townsend, Miller, & Guo, 2001). However, support for the second hypothesis was not provided for females based on therapist rating. Conversely, based on therapist rating of goal completion, females in this sample who reported higher relationship quality (lower marital discord) were less likely to complete therapy. Although these results for females were in the opposite direction of what was hypothesized, it is not a surprising finding; it may be that there is a threshold for relationship quality.

Both males and females reported clinically significant relationship distress (below the RDAS cutoff of 48, indicating low relationship quality). Doss et al. (2003) reported that couples coming to therapy were likely to have waited to attend until the distress level was extremely elevated, so finding clinically significant levels of reported relationship distress by clients seeking couple therapy was expected. Furthermore, it is not unlikely that several of these clients who drop out after one sessions agreed to "try therapy" by coming to one session, without intention to continue. These couples would be expected to have low relationship quality, so it may be that clients who have higher relationship quality are those that are more willing to complete more sessions of therapy. Whereas it was hypothesized that couples with low relationship quality will be more likely to drop out of therapy prematurely, it is also likely that if the relationship quality is too low, clients will dropout earlier in therapy.

Pre-Therapy Symptom Distress and Therapist Factors

Results for the first hypothesis (higher levels of pre-therapy symptom distress will be related to higher termination rates for males and females) approached significance for females in relation to attrition defined by length of treatment, though the model itself was not significant.

Though in the full sample support was not found for males and females, it is important to note that support was provided in the sensitivity analysis; in examining the sample without the clients seen by therapist 606, female clients who reported higher individual symptoms indicated more therapy completion. These results are important to consider, as they are similar to previously discussed findings indicating that individual symptoms predict premature termination (Allgood & Crane, 1991; MacNair & Corazzini,1994; Swift & Greenberg, 2012). Therapist factors should be considered in influencing client attrition. The focus of this study was on client factors, but one potential control variable for future research could be controlling for the identity of the therapist.

Demographic Variables: Age and Education as Control Variables

As previously discussed, in many analyses of premature termination, age and education have been examined and been found to be related to attrition (Swift & Greenberg, 2012), so they were controlled for in this study. Results provided support for education as a significant demographic variable in relation to attrition in this sample for both males and for females, but not age. Little explanation has been provided for why these relate so strongly to attrition, though it has been suggested that socioeconomic status and client perception of the therapist both might play a role (Baekeland & Lundwall, 1975; Lambert & Barley, 2001; Wierzbicki & Pekarik, 1993). In order to examine this further, information on client perception of the therapist would be needed. These findings support examining education in relation to attrition, however, in future analyses.

Family Systems Theory and Nonfindings

Although results indicated that relationship quality may be important for both males and females, there was not much support for other hypotheses. These nonfindings are likely related

to the complexity of relationships within couple therapy in particular, as explained by family systems theory. Marriage and family therapy modalities generally fall under the umbrella of family systems theory; all modalities employed in this particular clinic are family systems modalities. This theory emphasizes patterns of interactions within relationships, with the emphasis placed not only on the individual client, but on the couple as a unit as well. Although the focus of this study is on males and females analyzed separately, all clients in this sample were clients that attended the marriage and family therapy center specifically for couple therapy. It has been suggested that for every marriage, there were really two marriages, and they do not always necessarily correspond (Bernard, 1982), which highlights the complexity of couple therapy. It is very likely that due to differences in partners within a couple, results emerged as nonsignificant.

Family systems theory indicates that struggles in the couple relationship are maintained by both spouses. Allgood and Crane (1991) suggest that this can be used in a beneficial way as marriage and family therapy examines problems systemically; it is possible that the focus in conjoint therapy might aid the couple in viewing problems as more manageable. Thus, these couples would be less likely to drop out. Conversely, though, they found that having a problem related to only one partner was related to premature termination. These spouses may feel more coerced and less motivated to attend therapy in the first place, so it is important to understand attrition factors for these couples. There are likely discrepancies in how the spouses view the problem, which Gordon, Friedman, Miller, and Gaertner (2005) indicate may potentially moderate the relationship between individual and couple symptoms.

Thus, one difficulty in couple therapy is highlighted in how clients generally present their problems; whereas in individual therapy, a client may attend for depression or anxiety, in couple

therapy, the presenting problem is often less easily categorized or defined. Whisman, Dixon, and Johnson (1997) reviewed practicing couple therapists and found that the most common presenting problems included lack of loving feelings, power struggles, communication, affairs, and unrealistic expectations. Other common problems included role problems and value conflicts. These presenting problems are often more convoluted and are related to the dynamic of the interaction between partners, rather than a "fixable" aspect of one partner or another. Augmenting this complexity when couples enter therapy, often one partner is the "identified patient." Therefore, a common problem in couple therapy is that only one partner is invested in coming to therapy, meaning that partners likely differ on symptom reporting, marital quality reporting, and motivation to change. From the results in the present study, it appears that relationship quality is important in understanding continuation in therapy. However, it may be that how partners both feel about their symptoms and the need for therapy cancel each other out in some senses, lending to the nonfindings.

In particular, clients with more motivation to change believe that they have a problem and are willing to make an effort to change, whereas clients with poor motivation to change may assume that they do not have a problem that needs to be changed. Support for poor client motivation to change as a predictor of attrition is mixed in the literature, with some finding that it does lend to attrition (Prochaska & DiClemente, 1992) and some finding that it was not related (Principe, Marci, Glick, & Ablon, 2006; Tambling & Johnson, 2008). The influence of motivation to change may not be directly related to attrition, but it may influence symptom presentation and therapeutic alliance. Doss et al. (2003) indicated that couples often wait to initiate therapy until symptoms are extremely high, which creates problems in initiating therapy and lends to discrepancies between partners. It may be, then, that both partners are concerned

about their relationship, will remain in therapy, and will work on their relationship, but this outcome is more likely if both partners agree they have problems. It may also be that the clients come to therapy to say that they tried to work together before ending a relationship with little intention to change, meaning poor motivation to change, and although their symptoms may look similar to the couples that have higher motivation to change, they would be more likely to dropout. Moreover, if only one partner is invested in initiating therapy, it is still highly likely that the couple will come, but the length of time that they will attend therapy together is likely to not be equivalent to the amount of time that either of them would be coming to therapy alone. Therefore, length of time in therapy itself is influenced by the interaction of the couple.

Finally, when more than one client is present, the therapist then has to balance multiple therapeutic relationships. This complexity of relationships between therapist and clients in couple therapy has been repeatedly shown to influence therapeutic outcomes, so it would be expected to influence dropout rate (Bartle-Haring et al., 2012). A potential problem for therapists working with couples is certainly discord between partners' perception of their relationship negatively impact the formation of a working alliance (Knoblock-Fedders, 2004; 2007). This difficulty is further complicated by requiring the therapist to effectively balance a good working relationship with both members of the couple, even when the partners are not in agreement.

Strengths of the Study

There were two main strengths in this study. First, Ward and McCollum (2005) suggested that one possible limitation was only examining one outcome variable (e.g. only therapist rating of attrition), and that considering multiple outcomes would strengthen results. This study attempted to address this by using a variable representing an estimate of the minimum

treatment length to be considered a therapy "completer," as well as therapist-reported outcome variables, as has been previously suggested (Masi et al., 2003; Ward and McCollum, 2005). Although there were certainly still arguable limitations to the approach, the use of both number of sessions and therapist-report to assess attrition provided strength to the findings.

Another strength is that the sample size of 443 couples (886 clients overall) was larger than several of the previous studies on attrition from couple therapy. Though males and females were analyzed separately in this sample, it is still important that these were clients who were attending couple therapy in particular, as differences between clients seeking individual and couple therapy have been suggested. Furthermore, it is important that this is a larger sample of couples. In 1999, for example, Johnson, Hunsley, and Greensberg reported that one of the larger samples reviewed in their study was 45, and that it was typical for studies in couple therapy to be smaller. Based on the review of literature, it appears that few studies have employed a larger sample size, so this was a strength of the current study.

Limitations and Future Directions

Limitations in this study included the measures of attrition used, difficulties within the training clinic, and competing explanations that may cancel out directionality of findings. Within the explanation of the difficulty of defining attrition, complications related to employing data from a training clinic and understanding the phase of therapy as explained. Future directions for improving on these difficulties are also explained.

Defining premature termination. Overall, for a variety of reasons, defining attrition has been extremely difficult in the literature, which has complicated understanding results in studies of attrition (Barrett et al., 2008; Masi et al., 2003; Reis & Brown, 2006; Swift et al., 2009). Clients may dropout for a variety of reasons; they may perceive that they have made

progress, other life circumstances may lend to dropping out, and financial reasons may play a role (Hamilton et al., 2011; Ogrodniczuk, Joyce, & Piper, 2005). Although in part, concerns about needing multiple reporting sources on dropout (Masi et al., 2003; Ward & McCollum, 2005) were addressed by report of both therapist and treatment length, one potential limitation is not collecting data from the client data past dropout or termination. Though this would understandably be difficult, as many clients would likely fail to maintain or return contact after terminating therapy early, attempting to collect client-reported data on reasons for attrition would be an invaluable future direction. It would allow future studies to assess for whether the client truly did not meet their goals in any sense, which may be different from whether the therapist alone thought they did not meet their goals (Helmeke, Bischof, & Fordsori, 2002). The variability between reporters (and measures) is also why it is important to use several different methods of examining attrition for more robust analyses.

Both measures of attrition in this study have associated limitations. Though therapist judgment of appropriate termination has been widely accepted and used (Bischoff & Sprenkle, 1993; Tambling & Johnson, 2008; Wierzbicki & Pekarik, 1993), it is also not without flaws. Westmacott, Hunsley, Best, Rumstein-McKean, and Schindler (2010) found that when clients dropped out, therapists were not fully aware of the extent of clients' perceived improvement or dissatisfaction. They suggest that therapist feedback is needed in order to prevent this difficulty. Likewise, Busseri and Tyler (2004) relate client-therapist agreement difficulties to therapy outcomes and the working alliance, finding that working alliance and agreement about the "target complaint" or subject of intervention were related to therapeutic outcomes. They suggest that the role of working alliance should be considered, and this is also a potential future direction. These findings also relate to an important clinical implication; therapist understanding

of client perceptions would be important in understanding client feedback effectively, which has been suggested to aid therapists in reducing attrition rates (Anker, Duncan, & Sparks, 2009).

The second measure of attrition was number of sessions, which is quite variable. Several different researchers have chosen different numbers as their number of sessions required to be considered as completion, and this varies by therapy modality. Therefore, therapy modality complicates this definition of attrition, and in a clinic that uses multiple modalities of therapy, choosing an estimate is difficult. In the clinic, different therapists use different modalities of therapy while progressing through training; this added a considerable amount of variability in expected treatment length based on modality of therapy. Measuring modality is one important future direction, particularly for this measure. Swift, Callahan, and Levine (2009) point out that part of the popularity of using number of sessions as an indicator of attrition is due to reliability of the measure and ease of use (in just needing to count sessions). Conversely, this can lead to misclassifying a large number of clients. This is also likely because although these therapy modalities are designed to generally conclude within these ranges, the treatments are generally not manualized in a strict sense, making it more difficult to pinpoint a number of sessions (Larner, 2004). Therefore, though treatment length is certainly an important factor in understanding what constitutes premature termination, fewer sessions does not always indicate earlier attrition. In order to more accurately employ treatment length as a measure of attrition, therapy modality would be an important control variable.

Training clinic. An additional potential limitation in this study may be that analyses were conducted on data from a training clinic. The overall dropout rate found in this study was at the top range of the generally reported 30% to 60%, and higher than the finding in recent meta-analyses for individual therapy. This finding may differ due to examining clients who

sought couple therapy in particular, but it is also likely due to data being collected in a training clinic. Although these findings may generalize to other training clinics, caution was necessary in generalizing to the entire clinical population due to differences in dropouts from first to fourth sessions. A difficulty in training clinics is the particulars of the setting, including having live supervisors, cameras, and one-way mirrors. Although Ward and McCollum (2005) explained that clients are aware that they are coming to a facility that trains therapists, these factors may make clients more nervous and may lend to higher attrition rates. Furthermore, client perceptions of the training clinic might change due to therapeutic alliance and comfort with their therapist. This relationship is also not well understood, as client perceptions of the training clinic setting have not been widely examined. Therefore, this is a limitation of the current study, as well as a future direction in order to understand attrition in training clinics in particular. In examining results from training clinics, the phase of therapy should be considered as well, as factors pertaining to the training clinic setup itself than to the clients or therapist might influence attrition in this setting.

Phase of therapy. In general, it has been suggested that clients who drop out earlier in therapy differ from those who drop out later; based on the phase of therapy, reasons for termination likely differ (Kazdin & Mazurick, 1994; Pekarik, 1992). Because the data used in the present study were from a marriage and family therapy training clinic, it was expected that differences in the training clinic setting compared to other practice settings might hinder comfort in therapy and preclude clients from returning (Ward & McCollum, 2005). Analyses from this study indicate that there may be differences (particularly for females) between early and late dropouts when early is defined as after only one session and late is defined as dropping out after two to five sessions. Differences within the training clinic may be related to perception of

therapist experience, which may also lend to attrition from therapy for some groups (Swift & Greenberg, 2012). However, in the current study, phase of therapy was difficult to define, because this would differ based on therapy modality. Therefore, modality would again need to be controlled for in order to effectively examine phase of therapy and attrition, but preliminary analyses in this study indicate that differences in phase of therapy are worth examining in future analyses, particularly in regard to age as a control variable.

Examining the couple as an actual couple. Following the extant literature, analyses in this study examined males and females separately. However, the relationship between couples is theoretically very complex, so a better understanding of how partners influence one another is needed.

Discrepancy analyses. Discrepancies between partners are indicated by differences in reporting and can augment difficulties in the process of therapy. In the current study, males and females reported individual symptoms, relationship quality, and stage of change differently. Discrepant reporting between male and female reporting is not an uncommon finding in individual symptoms like depression (Nolen-Hoeksema, 2001; Thayer, Rossy, Ruiz-Padial, & Johnsen, 2003) or anxiety (Lewinsohn, Gotlib, Lewinsohn, Seeley, & Allen, 1998). Similarly, it is not uncommon in reporting marital distress (Knobloch-Fedders et al., 2004; 2007), or stage of change (Porter & Ketring, 2011; Tambling & Johnson, 2008). Discrepancies in both feelings about symptoms and actual symptoms are important to understand in the context of couple therapy. These differences can influence the ability of the therapist to form a good working alliance with both partners (Bartle-Haring et al., 2012), which may influence premature termination from couple therapy. Therapeutic alliance has been found to be important in many therapeutic outcomes, because it reflects on the ability of the therapist to facilitate effective

change for clients through a therapeutic relationship (Anderson & Johnson, 2010; Nichols, 2010). Analyses to understand these discrepancies are needed in future research, as these differences may oppose each other and be responsible for nonfindings as well.

Actor partner interdependence model. Additionally, an important future direction is considering the "partner" effects from the APIM (Cook & Kenny, 2005; 2006; Kenny & Cook, 1999; Kenny, Kashy, & Cook, 2006). Relationship quality provided significant results, whereas individual symptoms and motivation to change largely did not provide significant results in predicting premature termination. These relationships may be more complex, however, and require more complex analyses in order to gain a more nuanced understanding. For example, Beach, Katz, Kim, and Brody (2003) used structural equation modeling in order to assess whether marital discord in one spouse was associated with depressive symptoms in the other spouse.

In examining the effects that spouses have on each other, they found that husbands' marital satisfaction at time one predicted wives' depressive symptoms at time two and vice versa. They explain that this suggests systemic importance and that working with couples can be important in influencing individual symptoms. Therefore, employing covariance structure analysis through an APIM (Cook & Kenny, 2005; 2006; Kenny & Cook, 1999; Kenny, Kashy, & Cook, 2006) may be of some use in understanding these relationships better. Support has been found for using the APIM with a clinical sample in couple therapy. For example, an APIM has been used to examine the effects of both the individual and their partner's attachment on symptom distress in couple therapy (Parker, Johnson, & Ketring, 2012). Whereas the focus of the present study was on actor effects, or individual effects, in future studies, partner effects should be considered by using the actor-partner interdependence model. This will allow

researchers to effectively address the complex relationship of these variables between couples and understand how partners influence both individual symptoms and relationship quality.

Conclusion

This study sought to examine factors that affected attrition rates for clients who attended couple therapy. In understanding factors that affect dropout rates from couple therapy, therapists will be better able to address and prevent barriers to treatment. Results in this study indicated that relationship quality predict attrition based on therapist rating for males and for females, as well as attrition based on treatment length for females. Minimal support was provided for the hypotheses pertaining to individual symptoms and stage of change in relation to attrition, but a more nuanced understanding of these relationships may be more complex and should be examined further. Results in this study also indicate that there were statistically significant differences for couple's initial reporting of symptoms, which was one plausible explanation for nonfindings in relation to symptoms and stage of change and attrition rates.

Future research should include discrepancy analyses and APIM analyses to examine more complex relationships between these variables, particularly motivation to change in relation to both individual and couple symptom reporting. Whereas the current literature has examined aggregate level findings, individual differences in couples may be more important, requiring a more nuanced understanding. Because higher couple adjustment was predictive of therapist rating for males and for females, it will be important to examine this relationship further, as therapists may be able to assess more carefully for barriers to treatment related to initial couple functioning. This may be especially important in relation to therapeutic alliance and therapist ability to effectively prevent termination by understanding and addressing potential client factors. An important clinical application is thus being able to provide appropriate feedback to

therapists in order to improve therapy outcomes (Lambert, Harmon, Slade, Whipple, & Hawkins, 2004). Future work needs to continue to understand factors affecting attrition from couple therapy in order to improve therapeutic outcomes for couples and to decrease premature termination so that clients receive appropriate services.

References

Allgood, S. M., & Crane, D. R. (1991). Predicting marital therapy dropouts. *Journal of Marital and Family Therapy, 17*, 73-79.

American Psychological Association, Office of Ethnic Minority Affairs. (2008). A portrait of success and challenge—Progress report: 1997-2005. Washington, DC: Author. Retrieved February 11, 2013, from http://www.apa.org/pi/oema/resources/success-challenge.pdf

Anderson, S. R., & Johnson, L. N. (2010). A dyadic analysis of the between-and within-system alliances on distress. *Family Process, 49*, 220-235.

Anker, M. G., Duncan, B. L., & Sparks, J. A. (2009). Using client feedback to improve couple therapy outcomes: A randomized clinical trial in a naturalistic setting. *Journal of Consulting & Clinical Psychology, 77*, 693-704.

Baekeland, F., & Lundwall, L. (1975). Dropping out of treatment: a critical review. *Psychological Bulletin, 82*, 738-783.

Barbato, A., & D'Avanzo, B. (2008). Efficacy of couple therapy as a treatment for depression: a meta-analysis. *Psychiatric Quarterly, 79*, 121-132.

Barrett, M. S., Chua, W. J., Crits-Christoph, P., Gibbons, M. B., & Thompson, D. (2008). Early withdrawal from mental health treatment: Implications for psychotherapy practice. *Psychotherapy, 45*, 247-267.

Bartle-Haring, S., Glebova, T., Gangamma, R., Grafsky, E., & Delaney, R. (2012). Alliance and termination status in couple therapy: A comparison of methods for assessing discrepancies. *Psychotherapy Research, 22*, 502-514.

Bartle-Haring, S., Glebova, T., & Meyer, K. (2007). Premature termination in marriage and family therapy within a bowenian perspective. *The American Journal of Family Therapy, 35*, 53-68.

Beach, S. R., Katz, J., Kim, S., & Brody, G. H. (2003). Prospective effects of marital satisfaction on depressive symptoms in established marriages: A dyadic model. *Journal of Social and Personal Relationships, 20*, 355-371.

Beckstead, D. J., Hatch, A. L., Lambert, M. J., Eggett, D. L., Goates, M. K., & Vermeersch, D. A. (2003). Clinical significance of the Outcome Questionnaire (OQ-45.2). *The Behavior Analyst Today, 4*(1), 86-96.

Bennett, D. A. (2001). How can I deal with missing data in my study?. *Australian and New Zealand Journal of Public Health, 25*, 464– 469.

Bernard, J. (1982). The Future of Marriage. New Haven, CT: Yale University Press.

Bischoff, R. J., & Sprenkle, D. H. (1993). Dropping out of marriage and family therapy: A critical review of research. F*amily Process, 32*, 353-375.

Broderick, C. B. (1993). *Understanding family process: Basics of family systems theory*. Thousand Oaks, CA: Sage Publications, Inc.

Budman, S. H., & Gurman, A. S. (2002). Theory and practice of brief psychotherapy. New York: Guilford Press.

Busby, D. M., Christensen, C., Crane, D. R., & Larson, J. H. (1995). A revision of the Dyadic Adjustment Scale for use with distressed and nondistressed couples: Construct hierarchy and multidimensional scales. *Journal of Marital and Family Therapy, 21*, 289-308.

Busseri, M. A., & Tyler, J. D. (2004). Client–therapist agreement on target problems, working alliance, and counseling outcome. *Psychotherapy Research, 14*, 77-88.

Callaghan, R. C., Hathaway, A., Cunningham, J. A., Vettese, L. C., Wyatt, S., & Taylor, L. (2005). Does stage-of-change predict dropout in a culturally diverse sample of adolescents admitted to inpatient substance-abuse treatment? A test of the transtheoretical model. *Addictive Behaviors, 30*, 1834-1847.

Callahan, J. L., Aubuchon-Endsley, N., Borja, S. E., & Swift, J. K. (2009). Pretreatment expectancies and premature termination in a training clinic environment. Training and Education in Professional Psychology, 3(2), 72-77.

Clark, P., Robertson, J., Keen, R., & Cole, C. (2011). Outcomes of client transfers in a training setting. *American Journal of Family Therapy, 39*, 214-225.

Cook, W. L., & Kenny, D. A. (2005). The actor–partner interdependence model: A model of bidirectional effects in developmental studies. *International Journal of Behavioral Development, 29*, 101-109.

Cook, W. L., & Kenny, D. A. (2006). Examining the validity of self-report assessments of family functioning: A question of the level of analysis. *Journal of Family Psychology, 20*, 127-141.

Crane, D. R., & Christenson, J. (2012). A summary report of the cost-effectiveness of the profession and practice of marriage and family therapy. *Contemporary Family Therapy*, *34*, 204-216.

Crane, D. R., Middleton, K. C., & Bean, R. A. (2000). Establishing criterion scores for the Kansas marital satisfaction scale and the revised dyadic adjustment scale. *American Journal of Family Therapy, 28*, 53-60.

Crane, R. D., & Payne, S. H. (2011). Individual versus family psychotherapy in managed care: Comparing the costs of treatment by the mental health professions. *Journal of Marital and Family Therapy, 37*, 273-289.

DeJong, H., Broadbent, H., & Schmidt, U. (2012). A systematic review of dropout from treatment in outpatients with anorexia nervosa. *International Journal of Eating Disorders, 45*, 635-647.

Derisley, J., & Reynolds, S. (2002). Evaluation of the stages of change scales to measure client readiness for treatment in a mental health sample. *Behavioural and Cognitive Psychotherapy, 30*, 217-222.

Doss, B. D., Hsueh, A. C., & Carhart, K. (2011). Premature termination in couple therapy with veterans: Definitions and prediction of long-term outcomes. *Journal of Family Psychology, 25*, 770-774.

Downey, R. G., & King, C. V. (1998). Missing data in likert ratings: A comparison of replacement methods. *The Journal of General Psychology, 125*, 175-191.

Emanuels-Zuurveen, L., & Emmelkamp, P. M. (1996). Individual behavioural-cognitive therapy v. marital therapy for depression in maritally distressed couples. *The British Journal of Psychiatry, 169*, 181-188.

Flückiger, C., Del Re, A. C., Wampold, B. E., Symonds, D., & Horvath, A. O. (2012). How central is the alliance in psychotherapy? A multilevel longitudinal meta-analysis. J*ournal of Counseling Psychology, 59*, 10-17.

Fowler, J. C., Groat, M., & Ulanday, M. (2013). Attachment style and treatment completion among psychiatric inpatients with substance use disorders. *The American Journal on Addictions, 22*, 14-17.

Fox-Wasylyshyn, S. M., & El-Masri, M. M. (2005). Handling missing data in self-report measures. *Research in Nursing & Health, 28*, 488-495.

Gladding, S. T. (2002). *Family therapy* (3rd ed.). Upper Saddle River, NJ: Pearson/Merrill Prentice Hall.

Gordon, K., Friedman, M. A., Miller, I. W., & Gaertner, L. (2005). Marital attributions as moderators of the marital discord-depression link. *Journal of Social and Clinical Psychology, 24*, 876-893.

Greenspan, M., & Kulish, N. M. (1985). Factors in premature termination in long-term psychotherapy. *Psychotherapy, 22*, 75-82.

Hamilton, S., Moore, A. M., Crane, D. R., & Payne, S. H. (2011). Psychotherapy dropouts: Differences by modality, license, and DSM-IV diagnosis. *Journal of Marital and Family Therapy, 37*, 333-343.

Hawthorne, G., & Elliott, P. (2005). Imputing cross-sectional missing data: comparison of common techniques. *Australian & New Zealand Journal of Psychiatry, 39*, 583-590.

Helmeke, K. B., Bischof, G. H., & Ford Sori, C. E. (2002). Dropping out of couple therapy: A qualitative case study. *Journal Of Couple & Relationship Therapy, 1*(2), 51-73.

Hodgson, J. L., Johnson, L. N., Ketring, S. A., Wampler, R. S., & Lamson, A. L. (2005). Integrating research and clinical training in marriage and family therapy training programs. *Journal of Marital and Family Therapy, 31*, 75-88.

Huisman, M. (2000). Imputation of missing item responses: Some simple techniques. *Quality and Quantity, 34*, 331-351.

Huppert, J. D., Barlow, D. H., Gorman, J. M., Shear, M. K., & Woods, S. W. (2006). The interaction of motivation and therapist adherence predicts outcome in cognitive

behavioral therapy for panic disorder: Preliminary findings. *Cognitive and Behavioral Practice, 13*, 198-204.

Johnson, S. M., & Greenberg, L. S. (1985). Emotionally focused couples therapy: An outcome study. *Journal of Marital and Family Therapy*, *11*, 313-317.

Kazdin, A. E., & Mazurick, J. L. (1994). Dropping out of child psychotherapy: Distinguishing early and late dropouts over the course of treatment. *Journal of Consulting and Clinical Psychology, 62*, 1069-1074.

Keijsers, G. P., Kampman, M., & Hoogduin, C. A. (2001). Dropout prediction in cognitive behavior therapy for panic disorder. *Behavior Therapy, 32*, 739-749.

Kenny, D. A., & Cook, W. (1999). Partner effects in relationship research: Conceptual issues, analytic difficulties, and illustrations. *Personal Relationships, 6*, 433-448.

Kenny, D. A., Kashy, D., & Cook, W. L. (2006). *Dyadic data analysis*. New York: Guilford Press.

Kilmann, P., & Vendemia, J. C. (2013). Partner discrepancies in distressed marriages. *Journal Of Social Psychology, 153*, 196-211.

Kim, J. E., Zane, N. W., & Blozis, S. A. (2012). Client predictors of short term psychotherapy outcomes among Asian and white American outpatients. *Journal of Clinical Psychology, 68*, 1287-1302.

King, G., Honaker, J., Joseph, A., & Scheve, K. (2001). Analyzing incomplete political science data: An alternative algorithm for multiple imputation. *American Political Science Review, 95*, 49-70.

Klein, E. B., Stone, W. N., Hicks, M. W., & Pritchard, I. L. (2003). Understanding dropouts. *Journal Of Mental Health Counseling, 25*, 89-100.

Knerr, M., Bartle-Haring, S., McDowell, T., Adkins, K., Delaney, R. O., Gangamma, R., ... & Meyer, K. (2011). The impact of initial factors on therapeutic alliance in individual and couples therapy. *Journal of Marital and Family Therapy, 37*, 182-199.

Knobloch-Fedders, L. M., Pinsof, W. M., & Mann, B. J. (2004). The formation of the therapeutic alliance in couple therapy. *Family Process, 43*, 425-442.

Knobloch-Fedders, L. M., Pinsof, W. M., & Mann, B. J. (2007). Therapeutic alliance and treatment progress in couple psychotherapy. *Journal of Marital and Family Therapy, 33*, 245-257.

Lambert, M. J., & Barley, D. E. (2001). Research summary on the therapeutic relationship and psychotherapy outcome. *Psychotherapy, 38*, 357-361.

Lambert, M. J., Burlingame, G. M., Umphress, V., Hansen, N. B., Vermeersch, D. A., Clouse, G. C., & Yanchar, S. C. (1996). The reliability and validity of the Outcome Questionnaire. *Clinical Psychology & Psychotherapy, 3*, 249-258.

Lambert, M. J., & Ogles, B. (2004). The efficacy and effectiveness of psychotherapy. In M. J. Lambert (Ed.), *Bergin and Garfield's handbook of psychotherapy and behavior change* (5th ed., pp. 139-193). New York: Wiley.

Larner, G. (2004). Family therapy and the politics of evidence. *Journal of Family Therapy, 26*, 17-39.

Lebow, J. L., Chambers, A. L., Christensen, A., & Johnson, S. M. (2012). Research on the treatment of couple distress. *Journal of Marital and Family Therapy, 38*, 145-168.

Lewinsohn, P. M., Gotlib, I. H., Lewinsohn, M., Seeley, J. R., & Allen, N. B. (1998). Gender differences in anxiety disorders and anxiety symptoms in adolescents. *Journal of Abnormal Psychology, 107*, 109-117.

Lundblad, A. & Hansson, K. (2005). Relational problems and psychiatric symptoms in couple therapy. *International Journal Of Social Welfare, 14*, 256-264.

MacIntosh, H. B., & Johnson, S. (2008). Emotionally focused therapy for couples and childhood sexual abuse survivors. *Journal of Marital and Family Therapy, 34*, 298-315.

MacNair, R. R., & Corazzini, J. G. (1994). Client factors influencing group therapy dropout. *Psychotherapy, 31*, 352-362.

Masi, M. V., Miller, R. B., & Olson, M. M. (2003). Differences in dropout rates among individual, couple, and family therapy clients. *Contemporary Family Therapy, 25*, 63.

McCabe, K. M. (2002). Factors that predict premature termination among Mexican-American children in outpatient psychotherapy. *Journal of Child and Family Studies, 11*, 347-359.

McConnaughy, E. A., DiClemente, C. C., Prochaska, J. O., & Velicer, W. F. (1989). Stages of change in psychotherapy: A follow-up report. *Psychotherapy, 26*, 494-503.

McConnaughy, E. A., Prochaska, J. O., & Velicer, W. F. (1983). Stages of change in psychotherapy: Measurement and sample profiles. *Psychotherapy, 20*, 368-375.

Moore, A. M., Hamilton, S., Crane, D. R., & Fawcett, D. (2011). The influence of professional license type on the outcome of family therapy. *The American Journal of Family Therapy, 39*, 149-161.

Nichols, M.P. (2010). *Family therapy: Concepts and methods* (9th ed.). Boston: Allyn & Bacon.

Nolen-Hoeksema, S. (2001). Gender differences in depression. *Current Directions in Psychological Science, 10*, 173-176.

Parker, M. L., Johnson, L. N., & Ketring, S. A. (2012). Adult attachment and symptom distress: A dyadic analysis of couples in therapy. *Journal of Family Therapy, 34*, 321-344.

Pekarik, G. (1992). Posttreatment adjustment of clients who drop out early vs. late in treatment. *Journal of Clinical Psychology, 48*, 379-387.

Porter, R., & Ketring, S. (2011). Contributing factors in the therapeutic alliance. *Journal of Couple & Relationship Therapy, 10*, 201-214.

Principe, J. M., Marci, C. D., Glick, D. M., & Ablon, J. S. (2006). The relationship among patient contemplation, early alliance, and continuation in psychotherapy. *Psychotherapy, 43*, 238-243.

Prochaska, J. O., & DiClemente, C. C. (1983). Stages and processes of self-change of smoking: Toward an integrative model of change. *Journal of Consulting and Clinical Psychology, 51*, 390-395.

Raaijmakers, Q. A. W. (1999). Effectiveness of different missing data treatments in surveys with likert-type data: Introducing the relative mean substitution approach. *Educational and Psychological Measurement, 59*, 725-748.

Reis, B. F., & Brown, L. G. (1999). Reducing psychotherapy dropouts: Maximizing perspective convergence in the psychotherapy dyad. *Psychotherapy, 36*, 123-136.

Reis, B. F., & Brown, L. G. (2006). Preventing therapy dropout in the real world: The clinical utility of videotape preparation and client estimate of treatment duration. *Professional Psychology: Research and Practice, 37*, 311-316.

Robiner, W. N., & Storandt, M. (1983). Client perceptions of the therapeutic relationship as a function of client and counselor age. *Journal of Counseling Psychology, 30*, 96-99.

Rochlen, A. B., Rude, S. S., & Barón, A. (2005). The relationship of client stages of change to working alliance and outcome in short-term counseling. *Journal of College Counseling, 8*, 52-64.

Roth, P. L., Switzer, F. S., & Switzer, D. M. (1999). Missing data in multiple item scales: A Monte Carlo analysis of missing data techniques. *Organizational Research Methods, 2*, 211-232.

Scott, K. L. (2004). Stage of change as a predictor of attrition among men in a batterer treatment program. *Journal of Family Violence, 19*, 37-47.

Simon, G. M. (2006). The heart of the matter: A proposal for placing the self of the therapist at the center of family therapy research and training. *Family Process, 45*, 331-344.

Slife, B. D., Williams, R. N., & Barlow, S. H. (2001). *Critical issues in psychotherapy: Translating new ideas into practice.* Thousand Oaks, CA: Sage.

Spanier, G. B. (1976). Measuring dyadic adjustment: New scales for assessing the quality of marriage and similar dyads. *Journal of Marriage and the Family*, *38* 15-28.

Spanier, G. B., & Thompson, L. (1982). A confirmatory analysis of the Dyadic Adjustment Scale. *Journal of Marriage and the Family, 44*, 731-738.

Sprenkle, D. H. (2003). Effectiveness research in marriage and family therapy: Introduction. *Journal of Marital and Family Therapy, 29*, 85-96.

Sturkie, K., & Bergen, L. P. (2001). *Professional regulation in marital and family therapy.* Boston, MA: Allyn & Bacon.

Swift, J. K., Callahan, J., & Levine, J. C. (2009). Using clinically significant change to identify premature termination. *Psychotherapy, 46*, 328-335.

Swift, J. K., & Greenberg, R. P. (2012). Premature discontinuation in adult psychotherapy: A meta-analysis. *Journal of Consulting and Clinical Psychology, 80*, 547-559.

Swift, J. K., Greenberg, R. P., Whipple, J. L., & Kominiak, N. (2012). Practice recommendations for reducing premature termination in therapy. *Professional Psychology: Research and Practice, 43*, 379-387.

Tambling, R. B., & Johnson, L. N. (2008). The relationship between stages of change and outcome in couple therapy. *The American Journal of Family Therapy, 36*, 229-241.

Tambling, R. B., & Johnson, L. N. (2012). An exploratory factor analysis of the URICA among couple therapy participants. *The Family Journal, 20*, 63-69.

Thayer, J. F., Rossy, L. A., Ruiz-Padial, E., & Johnsen, B. H. (2003). Gender differences in the relationship between emotional regulation and depressive symptoms. *Cognitive Therapy and Research, 27*, 349-364.

Tilden, T., Gude, T., Hoffart, A., & Sexton, H. (2010). Individual distress and dyadic adjustment over a three-year follow-up period in couple therapy: A bi-directional relationship?. *Journal of Family Therapy, 32*, 119-141.

Townsend, A. L., Miller, B., & Guo, S. (2001). Depressive symptomatology in middle-aged and older married couples: A dyadic analysis. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences, 56*, 352-364.

Wampold, B. E. (2001). *The great psychotherapy debate: Models, methods, and findings.* Mahwah, NJ: Erlbaum.

Wampold, B. E. (2007). Psychotherapy: The humanistic (and effective) treatment. *American Psychologist, 62*, 857-873.

Ward, D. B., & McCollum, E. E. (2005). Treatment effectiveness and its correlates in a marriage and family therapy training clinic. *American Journal of Family Therapy, 33*, 207-223.

West, C., Jeff Hinton, W., Grames, H., & Adams, M. A. (2013). Marriage and family therapy: Examining the impact of licensure on an evolving profession. *Journal of Marital and Family Therapy*, *39*, 112-126.

Westmacott, R., Hunsley, J., Best, M., Rumstein-McKean, O., & Schindler, D. (2010). Client and therapist views of contextual factors related to termination from psychotherapy: A comparison between unilateral and mutual terminators. *Psychotherapy Research, 20*, 423-435.

Whisman, M. A., Dixon, A. E., & Johnson, B. (1997). Therapists' perspectives of couple problems and treatment issues in couple therapy. *Journal Of Family Psychology, 11*, 361-366.

Whisman, M. A., & Uebelacker, L. A. (2009). Prospective associations between marital discord and depressive symptoms in middle-aged and older adults. *Psychology and Aging, 24*, 184-189.

Wierzbicki, M., & Pekarik, G. (1993). A meta-analysis of psychotherapy dropout. *Professional Psychology: Research and Practice, 24*, 190-195.

Williams, S. L., Ketring, S. A., & Salts, C. J. (2005). Premature termination as a function of intake data based on ethnicity, gender, socioeconomic status, and income. *Contemporary Family Therapy, 27*, 213-231.

Zimmerman, T. S., Prest, L. A., & Wetzel, B. E. (1997). Solution-focused couples therapy groups: An empirical study. *Journal of Family Therapy, 19*, 125-144.

Appendices

Appendix 1: Tables

Table 1. *Demographics of males (n = 443) and females (n = 443) in committed relationships.*

Demographics (% missing)	Males		Females	
	N	Percent	N	Percent
Marital Status (2.3%)				
Significant Other	120	27.3%	116	26.5%
Married	291	66.3%	295	67.5%
Separated	28	6.4%	26	6.0%
Age Group (1.81%)				
18-29	202	45.5%	254	57.4%
30-39	146	32.9%	127	28.6%
40-49	69	15.7%	38	8.6%
50 and above	15	3.3%	15	3.4%
Racial Group (6.1%)				
White	332	80.4%	308	73.5%
African American	56	13.6%	82	19.6%
Hispanic/Non-White	5	1.2%	8	1.9%
Asian/Pacific Islander	7	1.7%	8	1.9%
Other	13	3.1%	13	3.1%
Income (8.24%)				
Less than $10,000	61	13.7%	78	17.6%
$10,001 to $20,000	83	18.7%	78	17.6%
$20,001 to $30,000	61	13.7%	61	13.7%
$30,001 to $40,000	73	16.5%	83	18.8%
Over $40,000	130	29.3%	101	22.8%
Education (3.27%)				
GED/High School	164	37.1%	125	28.2%
Vocational/Associates	60	13.5%	67	15.1%
Bachelor's Degree	95	21.4%	120	27.1%
Master's Degree	95	21.4%	120	27.1%
Other	59	13.4%	61	13.8%

Table 2. *Person mean substitution numbers and percentages for each scale.*

	Males			Females		
	Missing initially (%)	Replaced (%)	Missing final (%)	Missing initially (%)	Replaced (%)	Missing final (%)
Stage of Change (URICA)	124 (28.0%)	30 (6.8%)	94 (21.2%)	142 (32.1%)	49 (11.1%)	93 (21.0%)
Individual Symptoms (OQ)	94 (21.2%)	74 (16.7%)	20 (4.5%)	104 (23.5%)	88 (19.9%)	16 (3.6%)
Relationship Quality (RDAS)	55 (12.4%)	28 (6.3%)	27 (6.1%)	61 (13.8%)	35 (7.9%)	26 (5.9%)

Table 3. *Descriptive statistics*

	Males				Females			
	M	*SD*	Range	Skewness	*M*	*SD*	Range	Skewness
Stage of Change (URICA)								
Precontem.	18.33	3.85	24.00	0.44	15.10	4.62	31.00	1.09
Action	89.39	11.42	73.00	-0.42	91.76	11.51	86.58	-0.88
Individual Symptoms (OQ)	60.67	23.38	120.66	0.29	68.47	23.68	123.00	-0.07
Relationship Quality (RDAS)	39.56	9.40	62.00	-0.64	30.11	9.16	46.60	-0.12

Table 4. *Frequency distribution for number of sessions.*

Number of Sessions	Frequency	Percent
1	75	16.9
2	55	12.4
3	39	8.8
4	33	7.4
5	37	8.4
6	33	7.4
7	20	4.5
8	23	5.2
9	24	5.4
10	12	2.7
11	12	2.7
12	11	2.5
13	10	2.3
14	8	1.8
15	6	1.4
16	8	1.8
17	3	.7
18	1	.2
20	3	.7
21	5	1.1
22	1	.2
23	3	.7
24	7	1.6
25	2	.5
26	1	.2
27	2	.5
28	4	.9
30	3	.7
33	1	.2
36	1	.2
Total	443	100.0

Table 5. *Correlations of study variables for males and for females.*

Variables	1	2	3	4	5	6	7	8
1. Dropout (Treatment Length)	1	-.32***	.03	.06	-.03	-.05	.10*	-.03
2. Dropout (Therapist Rating)	-.32***	1	.09	-.05	.12	.02	.04	.10
3. OQ	-.04	.02	.34***	-.51***	.02	.12*	-.18***	.14**
4. RDAS	.05	-.09	.02	.03	-.03	-.03	.25***	-.08
5. URICA-Pre.	-.02	.03	-.11	-.07	.02	-.35***	-.10^	.15**
6. URICA-Act.	-.03	.03	.43***	-.03	-.37***	.10*	-.08	.07
7. Education	.06	-.01	-.07	-.03	-.15**	-.12*	.41***	.01
8. Age	-.02	.14	.18***	.00	.09	.06	.11*	.84***

Note. Females are represented above the diagonal, white males are represented below the diagonal. Correlations on the diagonal represent correlations between males and females (correlations on the diagonal were included only for discussion of future directions). ^$p < .10$, *$p < .05$, **$p < .01$, ***$p < .001$

Table 6. *Paired-sample t-tests.*

	N	Mean		Mean Difference	t	df
		Males	Females			
OQ	413	60.60	68.13	-7.53	-5.65^{***}	412
RDAS	393	39.54	30.06	9.48	14.44^{***}	392
Action	345	89.30	91.86	-2.56	-3.11^{**}	344
Precontemplation	344	18.35	15.11	3.24	10.05^{***}	343
Education	414	5.77	6.13	-0.36	-3.41^{***}	413
Age	424	31.51	29.57	1.94	8.71^{***}	423

$^{**}p<.01$, $^{***}p<.001$

Table 7. *Summary of linear regression for variables predicting therapy completion for males (capped at 6 sessions).*

	Model 1			Model 2			Model 3		
Variable	*B*	*SE*	*β*	*B*	*SE*	*β*	*B*	*SE*	*β*
Constant	3.87	0.54		2.90	1.67		2.58	2.08	
Education	0.12	0.06	0.11*	0.12	0.06	0.12*	0.12	0.06	0.12*
Age	-0.01	0.01	-0.05	-0.01	0.01	-0.04	-0.01	0.01	-0.04
OQ				0.00	0.01	-0.05	0.00	0.02	0.01
RDAS				0.02	0.01	0.06	0.02	0.03	0.10
Precontemplation				0.01	0.03	0.03	0.01	0.03	0.03
Action				0.00	0.01	0.02	0.00	0.01	0.02
OQ*RDAS							0.00	0.00	-0.07
R^2		0.014			0.021			0.021	
ΔR^2		0.014			0.007			0.000	

Note. The dependent variable, therapy attrition, was capped at 6 sessions, so that the number of sessions completed was coded as 6 for any client attending 6 or more sessions.
$^{*}p < .05$

Table 8. *Summary of linear regression for variables predicting therapy completion for females (capped at 6 sessions).*

	Model 1			Model 2			Model 3		
Variable	*B*	*SE*	*β*	*B*	*SE*	*β*	*B*	*SE*	*β*
Constant	3.57	0.58	3.57	2.46	1.51		2.07	1.97	
Education	0.13	0.06	0.13*	0.11	0.06	0.10^	0.11	0.06	0.10^
Age	-0.01	0.01	-0.01	-0.01	0.01	-0.03	-0.01	0.01	-0.03
OQ				0.01	0.01	0.11^	0.01	0.02	0.16
RDAS				0.03	0.02	0.14*	0.04	0.04	0.19
Precontemplation				0.00	0.03	0.00	0.00	0.03	0.00
Action				0.00	0.01	-0.02	0.00	0.01	-0.02
OQ*RDAS							0.00	0.00	-0.05
R^2		0.016^			0.033			0.033	
ΔR^2		0.016			0.017			0.000	

Note. The dependent variable, therapy attrition, was capped at 6 sessions, so that the number of sessions completed was coded as 6 for any client attending 6 or more sessions.
$^{\wedge}p < .10$; $^{*}p < .05$

Table 9. *Summary of linear regression for variables predicting therapy completion for males (capped at 6 sessions) with clients seen by therapist 606 removed.*

	Model 1			Model 2			Model 3		
Variable	*B*	*SE*	*β*	*B*	*SE*	*β*	*B*	*SE*	*β*
Constant	3.99	0.56		3.11	1.71		2.50	2.15	
Education	0.12	0.06	0.11*	0.12	0.06	0.11*	0.12	0.06	0.11*
Age	-0.02	0.01	-0.07	-0.01	0.02	-0.06	-0.01	0.02	-0.06
OQ				-0.01	0.01	-0.06	0.01	0.02	0.06
RDAS				0.01	0.01	0.06	0.03	0.04	0.13
Precontemplation				0.01	0.04	0.03	0.01	0.04	0.03
Action				0.00	0.01	0.02	0.00	0.01	0.02
OQ*RDAS							0.00	0.00	-0.14
R^2		0.016			0.023			0.024	
ΔR^2		0.016			0.007			0.001	

Note. The dependent variable, therapy attrition, was capped at 6 sessions, so that the number of sessions completed was coded as 6 for any client attending 6 or more sessions.
$^{\wedge}p < .10$; $^{*}p < .05$

Table 10. *Summary of linear regression for variables predicting therapy completion for females (capped at 6 sessions) with clients seen by therapist 606 removed.*

	Model 1			Model 2			Model 3		
Variable	*B*	*SE*	*β*	*B*	*SE*	*β*	*B*	*SE*	*β*
Constant	3.76	0.62		3.76	0.62		1.82	2.08	
Education	0.12	0.06	0.11*	0.12	0.06	0.11^	0.10	0.07	0.09^
Age	-0.01	0.02	-0.06	-0.01	0.02	-0.06	-0.01	0.02	-0.05
OQ				0.01	0.01	0.14*	0.02	0.02	0.22
RDAS				0.04	0.02	0.16*	0.05	0.04	0.23
Precontemplation				-0.01	0.03	-0.03	-0.01	0.03	-0.03
Action				0.00	0.01	-0.02	0.00	0.01	-0.01
OQ*RDAS							0.00	0.00	-0.08
R^2		0.017^			0.039^			0.040	
ΔR^2		0.017			0.022			0.001	

Note. The dependent variable, therapy attrition, was capped at 6 sessions, so that the number of sessions completed was coded as 6 for any client attending 6 or more sessions.
^$p < .10$; *$p < .05$

Table 11. *Logistic regression with the therapist rating as outcome.*

	Males				Females			
	B	*S.E.*	e^B	χ^2	*B*	*S.E.*	e^B	χ^2
Block 1: Controls				1.19				2.19
Age	.00	.01	1.00		.02	.02	1.02	
Education	-.07	.06	.94		-.03	.07	.98	
Constant	1.00	.56	2.71		.19	.63	1.21	
Block 2:				6.90				10.52
Age	-.01	.02	1.00		.01	.02	1.01	
Education	-.07	.07	.94		.03	.07	1.03	
OQ	.01	.01	1.01		.00	.01	1.00	
RDAS	.03*	.01	1.03		-.03*	.02	.97	
Precontemplation	-.01	.04	.99		.03	.03	1.03	
Action	.00	.01	1.00		-.01	.01	.99	
Constant	1.57	2.41	1.01		1.12	1.64	3.08	
Block 3: With Interaction				8.38				11.20
Age	-.01	.02	1.00		.01	.02	1.01	
Education	-.06	.07	.94		.03	.07	1.03	
OQ	.00	.02	1.00		-.01	.02	.99	
RDAS	.01	.04	1.01		-.06	.04	.94	
Precontemplation	-.01	.04	.99		.03	.03	1.03	
Action	.00	.01	1.00		-.01	.01	.99	
OQ*RDAS	.00	.00	1.00		.00	.00	1.00	
Constant	.69	2.19	1.99		2.24	2.14	9.41	

Note. The dependent variable, therapy attrition, is coded so that 0 = therapy dropout (therapist rated therapy goals as not completed) and 1 = therapy completion (therapist rated therapy goals as completed).

^$p < .10$, *$p < .05$, **$p < .01$

Table 12. *Logistic regression with the therapist rating as outcome without clients seen by therapist 606.*

	Males				Females			
	B	*S.E.*	e^B	χ^2	*B*	*S.E.*	e^B	χ^2
Block 1: Controls				.83				1.02
Age	-.01	.01	.10		.01	.02	1.01	
Education	-.05	.06	.95		-.03	.07	.97	
Constant	.10	.57	2.71		.38	.65	1.47	
Block 2:				6.87				8.149
Age	-.01	.02	.99		.01	.02	1.01	
Education	-.04	.07	.96		.02	.07	1.02	
OQ	.01	.01	1.01		.00	.01	1.00	
RDAS	.03*	.02	1.03		-.02*	.02	.98	
Precontemplation	-.01	.04	.99		.04	.03	1.04	
Action	.00	.01	1.00		-.01	.01	.99	
Constant	-.07	1.81	.93		1.15	1.68	3.16	
Block 3: With Interaction				7.70				11.20
Age	-.01	.02	.99		.01	.02	1.01	
Education	-.04	.07	.96		.02	.07	1.02	
OQ	.01	.02	1.01		.00	.02	1.00	
RDAS	.03	.04	1.03		-.04	.04	.96	
Precontemplation	-.01	.04	.99		.04	.03	1.04	
Action	.00	.01	1.00		-.01	.01	.99	
OQ*RDAS	.00	.00	1.00		.00	.00	1.00	
Constant	-.05	2.23	.95		.01	.02	1.01	

Note. The dependent variable, therapy attrition, is coded so that 0 = therapy dropout (therapist rated therapy goals as not completed) and 1 = therapy completion (therapist rated therapy goals as completed).
^$p < .10$, *$p < .05$, **$p < .01$

Table 13. *Logistic regression predicting therapy attrition between first-session dropouts and all other clients.*

	Males				Females			
	B	*S.E.*	e^B	χ^2	*B*	*S.E.*	e^B	χ^2
Block 1: Controls				2.548				$5.325^{\wedge}$
Age	-.016	.017	.984		$-.037^{*}$	.017	.964	
Education	.105	.077	1.111		.066	.080	1.068	
Constant	1.447^{*}	.679	4.250		2.277^{**}	.754	9.744	
Block 2:				4.315				7.962
Age	-.020	.018	.980		$-.033^{\wedge}$	.018	.967	
Education	.112	.080	1.119		.034	.086	1.034	
OQ	.006	.007	1.006		.006	.007	1.006	
RDAS	.013	.017	1.013		.023	.020	1.023	
Precontemplation	.015	.044	1.015		-.037	.036	.964	
Action	-.010	.016	.990		-.012	.015	.988	
Constant	1.253	2.164	3.502		2.980	2.016	19.684	
Block 3: With Interaction				4.364				8.421
Age	-.020	.018	.980		$-.034^{\wedge}$	.018	.967	
Education	.113	.080	1.119		.030	.086	1.031	
OQ	.000	.027	1.000		-.007	.020	.993	
RDAS	.004	.044	1.004		-.006	.046	.994	
Precontemplation	.015	.044	1.015		-.041	.036	.960	
Action	-.010	.016	.990		-.014	.015	.986	
OQ*RDAS	.000	.001	1.000		.000	.001	1.000	
Constant	1.601	2.668	4.957		4.121	2.632	61.597	

Note. The dependent variable, therapy attrition, is coded so that 0 = therapy dropout (therapist rated therapy goals as not completed) and 1 = therapy completion (therapist rated therapy goals as completed).

^$p < .10$, *$p < .05$, **$p < .01$

Table 14. *Logistic regression models predicting therapy attrition between first-session and later dropouts.*

	Males				Females			
	B	S.E.	e^B	χ^2	B	S.E.	e^B	χ^2
Step 1:				.436				6.090*
Age	-.011	.019	.989		-.050*	.020	.951	
Education	.025	.085	1.025		-.033	.084	.967	
Constant	.899	.777	2.456		2.467**	.862	11.785	
Step 2:				2.353				7.486
Age	-.018	.020	.982		-.046*	.021	.955	
Education	.023	.091	1.023		-.063	.090	.939	
OQ	.009	.008	1.009		.004	.009	1.004	
RDAS	.003	.019	1.003		.018	.022	1.019	
Precontem.	.016	.050	1.016		-.030	.038	.970	
Action	-.016	.018	.985		-.011	.016	.989	
Constant	1.572	2.407	4.817		3.233	2.152	25.346	
Step 3:				3.158				8.614
Age	-.018	.020	.983		-.047*	.022	.954	
Education	.022	.091	1.022		-.070	.091	.932	
OQ	-.014	.027	.986		-.020	.024	.981	
RDAS	-.034	.045	.967		-.036	.056	.965	
Precontem.	.016	.050	1.016		-.039	.040	.962	
Action	-.016	.018	.984		-.015	.017	.985	
OQ*RDAS	.001	.001	1.001		.001	.001	1.001	
Constant	3.028	2.905	20.665		5.485$^{\wedge}$	3.058	241.011	

Note. The dependent variable, therapy attrition, is coded so that 0 = therapy dropout (completing 1 session or less) and 1 = therapy dropout after 2 to 5 sessions.
^$p < .10$, *$p < .05$, **$p < .01$

Appendix 2: Measures

University of Rhode Island Change Assessment
(McConnaughy, Prochaska, & Velicer, 1983)

Description: The URICA is a 32-item self-report measure that provides information on the stage of change for clients participating in psychotherapy. Currently the scale is designed for research purposes and there are no cutoff scores. The authors state that the stages are continuous and not discrete; hence it is possible to have high scores on more than one subscale.

Subscales: The URICA has four sub-scales; Precontemplation (items—1, 5, 11, 13, 23, 26, 29, 31); Contemplation (2, 4, 8, 12, 15, 19, 21, 24); Action (3, 7, 10, 14, 17, 20, 25, 30); and Maintenance (6, 9, 16, 18, 22, 27, 28, 32).

Scoring: To score the URICA simply sum the responses on the corresponding subscale.

This questionnaire is to help us improve services. Each statement describes how a person might feel when starting therapy or approaching problems in their lives. Please indicate the extent to which you tend to agree or disagree with each statement. In each case, make your choice in terms of how you feel right now, not what you have felt in the past or would like to feel. "Here" refers to the place of treatment or the problem.

1 = Strongly Disagree, 2 = Disagree, 3 = Undecided, 4 = Agree, 5 = Strongly Agree

1.	As far as I'm concerned, I don't have any problems that need changing.	1	2	3	4	5
2.	I think I might be ready for some self-improvement.	1	2	3	4	5
3.	I am doing something about the problems that have been bothering me.	1	2	3	4	5
4.	It might be worthwhile to work on my problem.	1	2	3	4	5
5.	I'm not the one with a problem. It doesn't make much sense for me to be here.	1	2	3	4	5
6.	It worries me that I might slip back into a problem that I have already changed, so I am here to seek help.	1	2	3	4	5
7.	I am finally doing some work on my problem.	1	2	3	4	5
8.	I've been thinking that I might want to change something about myself.	1	2	3	4	5
9.	I have been successful in working on my problem but I'm not sure I can keep up the effort on my own.	1	2	3	4	5
10.	At times my problem is difficult, but I'm working on it.	1	2	3	4	5
11.	Being here is pretty much a waste of time for me because the problem doesn't have to do with me.	1	2	3	4	5
12.	I'm hoping that this place will help me to better understand myself.	1	2	3	4	5
13.	I guess I have faults, but there's nothing that I really need to change.	1	2	3	4	5
14.	I am really working hard to change.	1	2	3	4	5
15.	I have a problem and I really think I should work at it.	1	2	3	4	5
16.	I'm not following through with what I have already changed as well as I had hoped, and I'm here to prevent a relapse of the problem.	1	2	3	4	5
17.	Even though I'm not always successful in changing, I am at least working on my problems.	1	2	3	4	5
18.	I thought once I had resolved my problem I would be free of it, but sometimes I still find myself struggling with it.	1	2	3	4	5
19.	I wish I had more ideas on how to solve the problem.	1	2	3	4	5
20.	I have started working on my problems but I would like help.	1	2	3	4	5
21.	Maybe this place will be able to help me.	1	2	3	4	5
22.	I may need a boost right now to help me maintain the changes I've already made.	1	2	3	4	5
23.	I may be part of the problems, but I don't really think I am.	1	2	3	4	5
24.	I hope that someone here will have some good advice for me.	1	2	3	4	5

Outcome Questionnaire (OQ®-45.2)

Instructions: Looking back over the last week, including today, help us understand how you have been feeling. Read each item carefully and mark the box under the category which best describes your current situation. For this questionnaire, work is defined as employment, school, housework, volunteer work, and so forth. Please do not make any marks in the shaded areas.

Name:____________________ Age:____yrs.

ID#____________________ Sex M ☐ F ☐

Session #________ Date___/___/_____

SD *IR* *SR*
DO NOT MARK BELOW

	Item	Never	Rarely	Sometimes	Frequently	Almost Always
1.	I get along well with others.	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0
2.	I tire quickly.	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4
3.	I feel no interest in things.	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4
4.	I feel stressed at work/school.	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4
5.	I blame myself for things.	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4
6.	I feel irritated.	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4
7.	I feel unhappy in my marriage/significant relationship.	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4
8.	I have thoughts of ending my life.	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4
9.	I feel weak.	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4
10.	I feel fearful.	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4
11.	After heavy drinking, I need a drink the next morning to get going. (If you do not drink, mark "never")	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4
12.	I find my work/school satisfying.	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0
13.	I am a happy person.	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0
14.	I work/study too much.	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4
15.	I feel worthless.	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4
16.	I am concerned about family troubles.	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4
17.	I have an unfulfilling sex life.	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4
18.	I feel lonely.	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4
19.	I have frequent arguments.	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4
20.	I feel loved and wanted.	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0
21.	I enjoy my spare time.	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0
22.	I have difficulty concentrating.	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4
23.	I feel hopeless about the future.	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4
24.	I like myself.	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0
25.	Disturbing thoughts come into my mind that I cannot get rid of.	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4
26.	I feel annoyed by people who criticize my drinking (or drug use). (If not applicable, mark "never")	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4
27.	I have an upset stomach.	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4
28.	I am not working/studying as well as I used to.	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4
29.	My heart pounds too much.	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4
30.	I have trouble getting along with friends and close acquaintances.	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4
31.	I am satisfied with my life.	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0
32.	I have trouble at work/school because of drinking or drug use. (If not applicable, mark "never")	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4
33.	I feel that something bad is going to happen.	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4
34.	I have sore muscles.	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4
35.	I feel afraid of open spaces, of driving, or being on buses, subways, and so forth.	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4
36.	I feel nervous.	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4
37.	I feel my love relationships are full and complete.	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0
38.	I feel that I am not doing well at work/school.	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4
39.	I have too many disagreements at work/school.	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4
40.	I feel something is wrong with my mind.	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4
41.	I have trouble falling asleep or staying asleep.	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4
42.	I feel blue.	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4
43.	I am satisfied with my relationships with others.	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0
44.	I feel angry enough at work/school to do something I might regret.	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4
45.	I have headaches.	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4

\+ \+

Total=

Developed by Michael J. Lambert, Ph.D. and Gary M. Burlingame, Ph.D.

© Copyright 1996 American Professional Credentialing Services LLC.
All Rights Reserved. License Required For All Uses.

For More Information Contact:

AMERICAN PROFESSIONAL CREDENTIALING SERVICES LLC
E-MAIL: APCS@EROLS.COM
WEB: WWW.OQFAMILY.COM
TOLL-FREE: 1-888-MH SCORE, (1-888-647-2673)
FAX/VOICE: 1-973-366-8665

Revised Dyadic Adjustment Scale

Most persons have disagreements in their relationships. Please indicate below the approximate extent of agreement or disagreement betweer you and your partner for each item on the following list.

	Always Agree	Almost Always Agree	Occa-sionally Agree	Fre-quently Disagree	Almost Always Disagree	Always Disagree
1. Religious matters						
2. Demonstrations of affection						
3. Making major decisions						
4. Sex relations						
5. Conventionality (correct or proper behavior)						
6. Career decisions						

	All the time	Most of the time	More often than not	Occa-sionally	Rarely	Never
7. How often do you discuss or have you considered divorce, separation, or terminating your relationship?						
8. How often do you and your partner quarrel?						
9. Do you ever regret that you married (or lived together)?						
10. How often do you and your mate "get on each other's nerves"?						

	Every Day	Almost Every Day	Occa-sionally	Rarely	Never
11. Do you and your mate engage in outside interests together?					

How often would you say the following events occur between you and your mate?

	Never	Less than once a month	Once or twice a month	Once or twice a week	Once a day	More often
12. Have a stimulating exchange of ideas						
13. Work together on a project						
14. Calmly discuss something						