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Evaluating the Effectiveness of the Four-Step Assessment Model in Structural Family Therapy

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A thesis submitted in partial fulfillment of the requirement for the degree of Bachelor of Science in Psychology from The College of William and Mary

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Abstract

The study examined the effectiveness of the four step model of structural family therapy developed by Minuchin, Nichols, and Lee (2007). It also examined the role of empathy in the therapy process, as well as sex differences. Seven therapy recordings were used, which were obtained from the archives of the Minuchin Center for the Family. Three undergraduate raters rated how the adult clients responded in regards to each of the four steps. Two undergraduate raters and an expert structural family therapist rated the therapists on their implementation of the four step model, and their empathy towards each adult client. Results showed that the therapist's adherence to the four step model was positively correlated with positive client responses indicating in-session change, but contingent on empathy expressed towards that client. Empathy was shown to be a moderator in the relationship between therapists' adherence to the four step model and client response. The therapy process is also talked about in depth.

Keywords: family therapy, structural family therapy, empathy, sex differences

Evaluating the Effectiveness of the Four-Step Assessment Model in Structural Family Therapy

A machine is more than the sum of its components. Similarly, a family is more than a collection of separate personalities. Both are systems, complex units with emergent properties. Thus, in dealing with psychological problems, some clinicians have come to use a family therapy approach - treating psychological problems as a function of individuals *and* of family organization. Besides the obvious use of family therapy to treat relational problems, it has been shown to have beneficial effects on the treatment of mental health issues such as antisocial behavior (Henggeler, 2015; Kazdin, 2005; Stern, 2004; Vermeulen, Jansen, Knorth, Buskens, & Reijneveld, 2016), eating disorders (Couturier, Kimber, & Szatmari, 2013; Fitzpatrick, Forsberg, & Colborn, 2015; Murray & Griffiths, 2015; Robinson, Dolhanty, & Greenberg, 2015), obsessive-compulsive disorder (Abramowitz et al., 2013; Anderson, Freeman, Franklin, & Sapyta, 2015; Hughes-Scalise & Przeworski, 2013; Thompson-Hollands, Edson, Tompson, & Comer, 2014), substance use disorders (Hogue et al., 2015; Lemieux, 2014; Morgan, Crane, Moore, & Eggett, 2013; Santisteban et al., 2015), depression (Beach & Jones, 2002; Crane et al., 2013; McDermut, Alves, Miller, & Keitner, 2001; Trowell et al., 2007), schizophrenia (Bertrando et al., 2006; Bressi, Manenti, Frongia, Porcellana, & Invernizzi, 2007; Mueser, 2005; Pilling et al., 2002), and child anxiety disorders (Blatter-Meunier & Schneider, 2011; Eskridge, 2004; Wood, Piacentini, Southam-Gerow, Chu, & Sigman, 2006). Furthermore, in some cases family therapy can be more cost effective (Crane, 2007, 2013; Crane & Cristenson, 2014; Cristenson, Crane, Bell, Beer, & Hillin, 2013; Fawcett, 2012; Goldfield, Epstein, Kilanowski, Paluch, & Kogut-Bossler, 2001; Gustafsson & Svedin, 1988; Head, 2010; Morgan, 2008; Morgan et al., 2013), often has a shorter treatment length (Corbett, 2005; Fawcett, 2012;

Morgan, 2008), reduce the number of health care visits (Crane, 2007; Morgan et al., 2013), and reduce the risk of dropout when added to individual therapy (Fawcett, 2012; Stupak, Hook, & Hall, 2007).

With the great potential to help, however, comes the complex challenge of dealing with the dual nature of families - individuals and their behavior and structural problems of family organization. Among the many approaches developed to treat families some of the most sophisticated models take a *systemic* perspective. The point of a systemic family systems approach is not to dispute that problems exist in individuals, or even that such problems are sometimes rooted in biological disorders. Rather the premise is that focusing exclusively on individuals and their problems often obscures the influence of family interactions in perpetuating such problems - and their potential for helping to resolve them (Nichols, 2016). As a result, the field of family therapy has a host of different treatment methods and models, and investigating the effectiveness of them is difficult. One such systemic approach, is structural family therapy.

Structural family therapy, pioneered by Salvador Minuchin (Nichols, 2013), seeks to locate in what may appear to be a chaotic mess of unpredictable thoughts and behaviors, an organized conceptual model of that family's structure. According to Minuchin (1974), families are composed of subsystems based on generation, gender, and function. These subsystems have interpersonal boundaries that protect the subsystems by regulating relational interactions. Minuchin and his colleagues found this model to be effective in the treatment of psychosomatic disorders (Minuchin, Rosman, & Baker, 1978), intractable asthma (Liebman, Minuchin, & Baker, 1974), and psychosomatically complicated cases of diabetes (Minuchin et al., 1975).

Structural family therapy has been shown to be beneficial in regards to addiction problems. Greif and Drechsler (1997) found that structural therapy helped foster more adaptive

parenting roles in heroin addicts. Structural therapy has also been found to be more effective than individual therapy or a placebo control group in reducing symptoms in families with drug-addicted members for at least twelve months (Stanton & Todd, 1979). It was also found to reduce the chances that African-American and Hispanic adolescents would start using drugs (Santisteban et al., 1997). Recently, it was found that structural family therapy was effective at reducing drug abuse in adolescents, which held up at both a three month and two year follow up (Sim, 2007). This approach to treatment was also implicated as being effective in treating pornography addiction (Ford, 2012).

Research has also been done that implicates structural family therapy as being able to effectively treat attention deficit hyperactivity disorder (ADHD; Zhu, 2013). One such study found that structural family therapy is at least as effective as communication training and behavioral management training in reducing negative communication, conflicts, and expressed anger between adolescents diagnosed with ADHD and their parents (Barkley, Guevremont, Anastopoulos, & Fletcher, 1992). Zhu and Lian (2009) found that structural family therapy is an effective method in the treatment of children with ADHD and oppositional defiant disorder.

Structural family therapy has also been implicated as an effective treatment method to help with schizophrenia (Yang & Pearson, 2002), and specifically helping alleviate symptoms of schizophrenia (Hanming, 2010). In addition, Li, Xu, and Wang (2007) have found that structural family therapy can improve the family and married status of a married patient with schizophrenia, and that combining structural family therapy with medication is significantly more effective than medication alone.

Calvert (2008) found structural family therapy effective in treating postpartum depression in that it both decreased depressive symptoms and improved overall family functioning. It has

also been found effective in treating adolescent depression (Yao, Yang, & Zhou, 2012), parental alienation syndrome (Gottlieb, 2012), reducing the chances of gang involvement in low-income families (McNeil, Herschberger, & Nedela, 2013), helping families overcome difficulties caused by differing acculturation experiences (Kim, 2003), increasing intimacy and sexual desire between couples struggling with those problems (Young, Negash, & Long, 2009), and reducing bullying (Butler & Platt, 2007). It has even been applied effectively in the field of sport psychology to university athletic teams (Parcover, Mettrick, Parcover, & Griffin-Smith, 2009).

According to Lebow (2014), assessment concentrates on identifying "key factors in the family that are most relevant to the problem for which the family is seeking treatment and most likely to prove helpful to enable the change in the difficulties with which the family is presenting" (p. 157). This assessment phase is many times thought of as coming before the actually therapy (Taibbi, 2007) and could involve asking simple questions in order to gain a better understanding of the family, or can go into more serious examination of family characteristics. For example, Patterson, Williams, Edwards, Chamow, and Grauf-Grounds (2009) laid out an in-depth plan for assessment. This included assessing for stressful life events, suicide, physical and sexual abuse, duty-to-warn issues, substance abuse, biological problems, and other things to gather all the necessary information needed before going through with the rest of therapy. Even in some models that try to intersperse assessment with interventions (Pinsof, Breunlin, Russel, & Lebow, 2011; Williams, Edwards, Patterson, & Chamow, 2011) they both are seen as markedly separate domains. Assessment being gathering essential information, and intervention being the stage where real change is made. Two processes, conceptually divorced from each other.

Nichols and Tafuri (2013), however, advocated that these two processes be married. They recommended that instead of sitting back and just taking in the answers to all of the posed questions, it would be better to take on a more active role in response to the questions. This means not just accepting what the family members put forth, but probe for possible systemic contributions to the presented issues. This in effect takes both the possible focal points of focusing on the presenting problem (de Shazer, 1988; Watzlawick, Weakland, & Fisch, 1974) and focusing on the underlying dynamics (Ackerman, 1966; Bowen, 1978) and sandwiches them into one in which the therapist sees the presenting complaint from the family's point of view and then pushes them recognize possible family dynamics promoting those issues.

One of the great challenges for a systems-oriented therapist is to explore a family's perspective on their problems *and* to expand that perspective to include the interactional context. The four step model of family assessment proposed by Minuchin, Nichols, and Lee (2007) was developed as a guide for therapists on how to help families resolve their problems by expanding their perspective from a *linear* one to an *interactional* one. They described this process by breaking it down into four steps: (1) opening up the presenting complaint, (2) highlighting problem-maintaining interactions, (3) a structurally focused exploration of the past, and (4) developing a shared vision of pathways to change.

The first step addresses one of the main problem therapists face. When a family comes in they usually have already reached a conclusion as to someone being the cause of their current problem. This can often be some character attribute about someone (e.g. "My husband is lazy", "My child is mean", "My wife is clingy"), a relational issue (e.g. "My husband doesn't listen to me", "My child lies to me", "My wife nags me") or the ever increasingly common medical model based problem (e.g. Attention-deficit/hyperactivity disorder, Bipolar disorder,

Depression). They expect the therapist to accept their conviction as an indisputable fact. So the therapist first must challenge this notion and open the clients' minds to a more panoptic understanding of their family. It's not necessarily to disagree that any individual in the family might have personal problems or that biological disorders are contributing to the presenting issue. But to move the focus off one singular individual to see what family interactions may be perpetuating some problems. This is done by asking each member of the family probing but respectful questions about the presenting problem. The goal is to not only identify information and background about the problem, but to help move the family members' focus from the identified patient to the family as a whole. Therefore, while asking about the presenting problem, the therapist should not simply accept the account given about their problems. They should make them feel heard while conveying that they are skeptical about someone being the sole problem. Neglecting to convey this doubt and readily accepting family's fixed version of events only further cements their linear viewpoint, and may limit the possibility of expanding their perspective.

The second step seeks to discover interpersonal feedback loops of interactions that may be perpetuating problems in the family. This step may be difficult because family members might feel as if blame is being shifted onto them. People often try to impute problems to other members of the family, and believe that since those others are the problem, then those others have to be the solution. In this systems-oriented view, however, there is no attempt to locate the origin of problems, or to assign blame for them. The intention is rather to discover what ongoing actions and interactions are making the problem worse, or preventing them from being resolved. This model assumes that relational problems are kept alive by a pattern of actions and reactions

creating a vicious cycle. This crucial step helps family members recognize their own role in maintaining the problem, a precursor to them realizing how they are in a position to help.

The third step is usually briefer than the others, and explores how the family got into this predicament. It is not to find out the cause of the problem itself, but rather to understand how they came to their current patterns of thinking and responding. The idea is that something in their past is still influencing their current behaviors, and unearthing it provides context that helps rationalize their behavior.

In step four the therapist takes the newly enlightened family members and works with them to see who can and who is willing to do what in order to break them free of their problem. Their newfound knowledge of their role in perpetuating the problem helps them realize what they themselves can do to alleviate it. Instead of directly telling them what to do, the therapist may help guide them if need be towards alternative and healthier methods of relating.

Empathy has been shown to play an important role in the therapeutic process and affect the outcome of therapy for the client (Bohart, Elliott, Greenberg, & Watson, 2002; Elliott, Bohart, Watson, & Greenberg, 2011). Several studies have investigated how this happens, but first it is necessary to define empathy. Bohart and Tallman (1997) characterize empathy as a specific way of listening, stating "Empathy is achieved through careful listening and attending, through 'hearing' and 'seeing' what the other person has to say and what he or she seems to be experiencing, through careful listening to oneself and to what 'comes up' in response to the other person, and through continual checking to make sure one is on the right track" (p. 401). Barrett-Lennard (1997) also commented on the relationship between empathy and listening, saying that the existence of empathy was dependent upon active listening without judgement, and the therapist showing genuine interest. While these definitions may blur the line between listening

and empathy, Nichols (1987) differentiates them saying "Truly respectful listening requires trying to fathom the experience implied by what people are saying. Empathy involves actively imagining what things look like from inside someone else's lifeworld" (p. 121). Listening in these ways helps the clients feel heard and understood, helping to prepare them for working with the therapist (Sundet, 2011).

Regarding how empathy actually affects therapy, the empathy of the therapist has been shown to promote the connection between therapist and client (Watson & Geller, 2005). Therapist empathy may also increase compliance with treatment, cognitive-affective processing, and can provide a corrective emotional experience (Elliot et al., 2011). Higher therapist empathy also increases client motivation (Moyers & Miller, 2013), and the agreement between the client and therapist regarding therapy tasks and goals (Bordin, 1979). These factors have shown to directly affect client outcomes (Norcross, 2002; Zuroff & Blatt, 2006).

According to Pinsof (1989), "Family therapy process research studies the interaction between therapist and family systems. Its goal is to identify change processes in the interaction between these systems" (p. 54). Outcome research on the other hand, true to its name, focuses on the overall result of therapy. Process research then, can be understood to be the kind of research aimed at studying the smaller building blocks that make up any therapy technique, or that make up a therapist's individual style. This is why it might be better for evaluating newer therapy methods such as the one developed by Minuchin, Nichols, and Lee (2007).

This study was designed to study how expert family therapists implement Minuchin, Nichols, and Lee's four-step model of assessment, and how the effectiveness with which they implement the various steps of the model relate to clients' expanded understanding of their role in maintaining problems - and empower them to see their potential for resolving these problems.

There is an inherent challenge in trying to expand family members' perspectives and what has been found to minimize the resistance to therapeutic challenge is a therapist's empathy. This means hearing and acknowledging clients' feelings before any attempt is made to challenge their way of viewing problems.

Several studies have backed this up, and related the importance of empathy specifically to structural family therapy, finding that empathy is essential in establishing a collaborative relationship (Hammond & Nichols, 2008), and in facilitating within-session change (Hammond, 2006; Hammond & Nichols, 2008). But as this method is relatively new, no studies have investigated both the effectiveness of this four step model of structural family therapy, and the role empathy plays with regards to this specific therapeutic model. This study aimed to fill those research gaps, by measuring the efficacy of the four step model developed by Minuchin, Nichols, and Lee (2007), and how the empathy of the therapist affects how the client responds.

Methods

Participants

Seven videotaped family therapy assessment sessions ranging from one to two hours in length were obtained from the Minuchin Center for the Family. The Minuchin Center has on file signed permissions from the clients used in this study to allow their tapes to be used in research and training. There were seven families with presenting complaints ranging from marital conflict to drug addiction and bipolar disorder. Six of the families were from the United States and one was from the United Kingdom.

Because we wanted to see how assessment strategies were implemented optimally, we chose two experts in structural family therapy, each with over thirty-five years of experience. Both therapists were male, one white, one Hispanic.

Therapists were rated by one experienced structural family therapist and two undergraduate raters. These two undergraduate raters studied several papers describing the four-step assessment model (Minuchin, Nichols, & Lee, 2007), then went over it with an expert structural family therapist, and finally underwent several sessions of training on rating the therapists. These training sessions included rating example tapes, with periodic pausing and explaining of what the therapist was doing, why they were why the therapist was doing it, and how it related to the four-step assessment model.

The process for the client raters was extensive and long. First, many undergraduates were brought to watch a family therapy tape by an experienced structural family therapist. Throughout the tape, they were asked questions to assess their current understanding of family systems as a way to see their potential for accurately rating clients on the basis of a structural model. Of those many undergraduates, only five were selected on the basis of their perceived understanding at the time of family systems. These five undergraduates were briefed and taught about the four-step assessment model of structural family therapy (Minuchin, Nichols, & Lee, 2007). They then had several sessions training them on rating client responses in regards to each of the four steps. At the end, the three raters with the highest interrater agreement were chosen and their rating data was used. Five raters were initially chosen to protect against potential drop-out, because it was a very long commitment.

Measures

Clients were rated separately by the three raters on a seven-point Likert-style scale for each of the four steps of the assessed model as seen in Figure 1 ($M = 3.714$, $SD = 1.920$). The rating for step one was made so that it had to be reverse coded in contrast to the other three. In the case of families with children the therapeutic goal was to help the parents broaden their

understanding of themselves and their children, not necessarily to develop insight in the children. Due to this only the adult clients were rated in each tape. Inter-rater reliability was assessed using both Pearson Correlation statistics and Spearman's rho statistics, which can be seen in Tables 1 and 2 respectively.

Therapists were rated on a seven-point Likert-style scale for each of the four steps during a session (M = 5.464, SD = 1.929). They were also rated on expressed empathy for each of the two adults (M = 4.619, SD = 1.392), making a total of six therapist ratings per tape. Therapists were rated on a 7-point scale from 1 to 7 on the effectiveness with which the therapist implemented the steps in the assessment model. Therapists were rated separately in three of the tapes to assess the reliability of the measure and by consensus the other four times. Inter-rater reliability was assessed using both Pearson Correlation statistics and Spearman's rho statistics, which can be seen in Tables 3 and 4 respectively.

Results

Independent Variables Separately

A simple linear regression was calculated to predict client response based on the therapist's effectiveness of implementation. A significant regression equation was found ($F(1, 54) = 76.072$, $p < .000$), with an R^2 of .585. Client's predicted response was equal to -.446 + .761 (IMPLEMENTATION) points when therapist's effectiveness of implementation was also measured in points. Client response increased .761 points for each point the therapist was rated on for effectiveness of implementation. Therapist's effectiveness of implementation was a significant, but weak to moderate predictor of client response.

A simple linear regression was calculated to predict client response based on the therapist's empathy towards the client. A significant regression equation was found ($F(1, 54) =$

71.734, $p < .000$), with an R^2 of .571. Client's predicted response was equal to -1.099 + 1.042 (EMPATHY) points when therapist's empathy towards the client was also measured in points. Client's predicted response increased 1.042 points for each point the therapist was rated on for empathy towards the client. Therapist's empathy towards the client was a significant, but weak to moderate predictor of client response.

Independent Variables Together

A multiple linear regression was calculated to predict client response based on the therapist's effectiveness of implementation and the therapist's empathy towards the client. A significant regression equation was found ($F(2, 53) = 140.959$, $p < .000$) with an R^2 of .842. Client's predicted response was equal to -2.819 + .754 (IMPLEMENTATION) + .559 (EMPATHY), when both therapist's effectiveness of implementation and therapist's empathy towards the client are measured in points. Client response increased .754 points for each point the therapist was rated on for effectiveness of implementation and .559 points for each point the therapist was rated on for empathy towards the client. Both therapist's effectiveness of implementation ($p < .000$) and therapist's empathy towards the client ($p < .000$) were significant, strong predictors of client response.

Moderation

The hypothesis that empathy is a moderator variable in the previous linear relationships was tested. To avoid problems of multicollinearity, the independent variables therapist's effectiveness of implementation of the four step model (Minuchin, Nichols, & Lee, 2007), and therapist's empathy towards each client were centered around their means. An interaction term was then computed by multiplying the two centered variables (Aiken, West, & Reno, 1991).

A multiple linear regression was calculated to predict client response based on the therapist's effectiveness of implementation, the therapist's empathy towards the client, and to see if empathy had a moderating effect on this. A significant regression equation was found ($F(3, 52) = 167.384$, $p < .000$), with an R^2 of .906 ($\Delta R^2 = .064$). Client's predicted response was equal to -3.265 + .631 (IMPLEMENTATION) + .720 (EMPATHY) + .209 (INTERACTION), when both therapist's effectiveness of implementation and therapist's empathy towards the client was measured in points. Client response increased .631 points for every point the therapist was rated on for effectiveness of implementation, .720 points for every point the therapist was rated on for empathy towards the client, and .209 points for every unit of the interaction term. Therapist's effectiveness of implementation ($p < .000$), therapist's empathy towards the client ($p < .000$) and the interaction term ($p < .000$) were all significant, very strong predictors of client response. An approximated graph of the moderating effect of empathy in this relationship can be seen in Figure 8.

Testing Assumptions

Linear regressions rely on several assumptions, but different people have different opinions on the way in which to account for violations of these assumptions. For this reason, the regressions were first run regardless of these assumptions. Then, efforts were made to account for any violations of the assumptions later and the regressions were rerun.

Sex differences. First, the data was analyzed to check for sex differences in therapist's empathy and client response. Therapist's effectiveness of implementation was not tested as the numbers were the exact same for both sexes due to the nature of the measure. In order to check for normality among the four sex separated variables (two for both therapist's empathy and client response), Shapiro-Wilk tests were run. The data as can be seen in Table 4, and indicates that all

four sets of the data cannot be assumed to be normal. This means to compare sex differences, the more common independent samples t test cannot be used. Instead, the Mann-Whitney U test was used as it does not rely on the assumption of normality of the data.

The first Mann-Whitney U test was ran to compare therapist's empathy towards males versus therapist's empathy towards females. The Mann-Whitney test indicated that therapist's empathy was significantly greater for females (Mdn = 5) than for males (Mdn = 5), U = 248.000, p = .016. Because they were determined to be significantly statistically different even though the medians were the same, the differences can be easier seen in the comparative box-and-whisker plot in Figure 2.

The second Mann-Whitney U test was ran to compare client responses in males versus females. The Mann-Whitney test indicated that client responses were not significantly greater for females (Mdn = 4.6667) than for males (Mdn = 2.8333), U = 301.000, p = .135. The comparative box-and-whisker plot was included in Figure 3 to show how in contrast to sex differences in therapist's empathy, the medians can seem to be very different while the data itself can still not be statistically significantly different.

Homoscedasticity. The relationship between therapist's effectiveness of implementation and client response, and the relationship between therapist's empathy and client response were graphed which can be seen in Figures 4 and 5 respectively.

Homoscedasticity means that the variance in the dependent variable does not depend on the dependent variable (Fox, 2015; Rencher & Schaalje, 2008). Basically, in the context of this data it would mean that in order to be homoscedastic, client response would have to have approximately the same amount of variance for all levels of both therapist's effectiveness of implementation and therapist's empathy towards each client. Data that is not homoscedastic is

referred to as heteroscedastic and can cause higher chances of Type I errors or decreased statistical power (Box, 1954; DeShon & Morris, 2003). Basically, it means there is a higher chance of detecting an effect when it is not really there, or failing to detect an effect when it is really there.

When looking at Figures 4 and 5, it appears possible that some of the data might be heteroscedastic, particularly Figure 4 with the relation between therapist's effectiveness of implementation and client response. Many complex methods exist to test this, but due to the relative simplicity of the data set it is relatively easy to simply graph the variance at each level of the independent variables and analyze the results. With many data sets, there are large amounts of data that fall irregularly across the graph. However, with this data since the scores were averaged from three raters who had only seven options, the data points were distributed across very specific levels of the independent variables.

Standard deviations of client response were calculated at each level of the independent variables as a measure of variance. For therapist's effectiveness of implementation, this ended up being nine calculated standard deviations for client response, the graph of which can be seen in Figure 6. For therapist's empathy, there ended up being only seven calculated standard deviations for client response and the graph can be seen in Figure 7.

First, a simple linear regression was calculated to predict the standard deviation of client responses based on the therapist's effectiveness of implementation. A significant regression equation was found ($F(1, 7) = 14.597$, $p = .007$), with an R^2 of .676. Client's predicted standard deviation of responses was equal to -.276 + .270 (IMPLEMENTATION) points when therapist's effectiveness of implementation is also measured in points. The standard deviation of client

response increased .270 for each point the therapist was rated on for effectiveness of implementation.

Then, another simple linear regression was calculated to predict the standard deviation of client responses based on the therapist's empathy. The regression equation was found to not be significant ($F(1, 5) = 1.365$, $p = .295$), with an R^2 of .214. This was not surprising as the plot did not visually look like there would be a correlation. In addition, the small sample size reduced the probability of finding anything significant.

According to Overton (2001) and then later backed up by Rosopa (2006), weighted least squares regression can be effectively used to account for when the assumption of homoscedasticity is violated. Weighted least squares regression weights residuals of predictor values with less error variance more than residuals of predictor values with more error variance (Myers, Well, & Lorch, 2010). The weights are determined by all the variables in a regression so weights were determined separately for each of the models that were run that would include the heteroscedastic independent variable therapist's effectiveness of implementation.

Individual Independent Variables

Assumptions Accounted for

Independent variables separately. A weighted simple linear regression was calculated to predict client response based on the therapist's effectiveness of implementation of the four step model (Minuchin, Nichols, & Lee, 2007). A significant regression equation was found ($F(1, 54) = 152.689$, $p < .000$), with an R^2 of .739. Client's predicted response was equal to .184 + .636 (IMPLEMENTATION) points when therapist's effectiveness of implementation was also measured in points. Client response increased .636 for each point the therapist was rated on for

effectiveness of implementation. Therapist's effectiveness of implementation was a significant, but moderate predictor of client response.

Then, a multiple linear regression was calculated to predict client response based on the therapist's empathy towards each client and sex. Sex was added due to the previous findings of sex differences in regard to empathy. A multiple linear regression was calculated to predict client response based on the therapist's empathy towards each client and sex. A significant regression equation was found ($F(2, 53) = 35.393$, $p < .000$), with an R^2 of .572. Client's predicted response was equal to -.956 - .145 (SEX) + 1.058 (EMPATHY), when sex was coded as 1 = Male, 2 = Female, and empathy was measured in points. Client response increased 1.058 points for each point the therapist was rated on for empathy towards the client and males were rated .145 more client response points than females. Therapist's empathy towards the client was a significant, but weak to moderate predictor of client response ($p < .000$). Gender was understandably not a significant predictor of client response ($p = .688$) as it was only included to account for gender differences in empathy.

Independent variables together. A weighted multiple linear regression was calculated to predict client response based on the therapist's effectiveness of implementation, therapist's empathy towards each client, and sex. A significant regression equation was found ($F(3, 52) = 96.217$, $p < .000$), with an R^2 of .847. Client's predicted response was equal to -3.524 + .546 (IMPLEMENTATION) + .846 (EMPATHY) + .227 (SEX) when therapist's effectiveness of implementation and therapist's empathy towards each client was measured in points, and sex was coded as 1 = Male, 2 = Female. Client response increased .546 points for each point the therapist was rated on for effectiveness of implementation, .846 points for each point the therapist was rated on for empathy towards the client, and females were rated .227 more client response points

than males. Both therapist's effectiveness of implementation and therapist's empathy towards each client were significant, strong predictors of client response ($p < .000$). Gender was not a significant predictor of client response ($p = .261$), again understandably because it was just inputted to account for gender differences.

Moderation with assumptions accounted for. Finally, the hypothesis that empathy is a moderator variable in the previous linear relationships was tested. To avoid problems of multicollinearity, the independent variables therapist's effectiveness of implementation of the four step model (Minuchin, Nichols, & Lee, 2007), and therapist's empathy towards each client were centered around their means. An interaction term was then computed by multiplying the two centered variables (Aiken, West, & Reno, 1991).

A weighted multiple linear regression was then calculated to predict client response based on the therapist's effectiveness of implementation, therapist's empathy, gender, and if empathy had moderating effects on that relationship. A significant regression equation was found ($F(4, 51) = 148.075$, $p < .000$), with an R^2 of .921 ($\Delta R^2 = .074$). Client's predicted response was equal to -3.348 + .628 (IMPLEMENTATION) + .711 (EMPATHY) + .092 (SEX) + .214 (INTERACTION), when both the therapist's effectiveness of implementation and the therapist's empathy towards each client were measured in points, and sex was coded as 1 = Male, 2 = Female. Client response increased .628 points for each point the therapist was rated on for effectiveness of implementation, .711 points for each point the therapist was rated on for empathy towards the client, .214 points for each interaction unit, and females were rated .092 more client response points than males. Therapist's effectiveness of implementation, therapist's empathy towards each client, and the interaction term were all significant, very strong predictors of client response ($p < .000$). Sex was again not a significant predictor of client response ($p =$

.576) because it was only included to account for sex differences. An approximated graph of the moderating effect of empathy in this relationship can be seen in Figure 9.

Sex differences with assumptions accounted for. Similar regressions were run for both male and females separately to see the differences between genders, whereas in the previous regressions gender was controlled for. The weights were recalculated for each sex's linear regressions that included therapist's effectiveness of implementation. The assumptions were not tested again because due to the nature of the measures, implementation had no differences between genders. In addition, client response for each sex was found to not be significantly different. Also due to the significant differences in the data being found only for empathy, only models that included empathy were tested separately for each sex.

Male clients. A weighted multiple linear regression was calculated to predict male client response based on the therapist's effectiveness of implementation of the four step model (Minuchin, Nichols, Lee, & 2007) and therapist's empathy towards male clients. A significant regression equation was found ($F(2, 25) = 25.859$, $p < .000$), with an R^2 of .674. Male client's predicted response was equal to -1.442 + .544 (IMPLEMENTATION) + .470 (EMPATHY FOR MALES), when therapist's effectiveness of implementation and therapist's empathy towards male clients are measured in points. Male client response increased .544 points for each point the therapist was rated on for effectiveness of implementation and .470 points for each point the therapist was rated on for empathy towards the male client. Both therapist's effectiveness of implementation ($p < .000$) and therapist's empathy towards male clients ($p = .005$) were significant, but moderate predictors of male client response.

Moderation with male clients. To test for possible moderating effects of empathy, the two independent variables therapist's effectiveness of implementation and therapist's empathy

towards male clients were centered around their means. An interaction term was then computed by multiplying the two independent variables.

A weighted multiple linear regression was calculated to predict male client response based on the therapist's effectiveness of implementation, the therapist's empathy towards male clients, and if empathy had moderating effects on this relationship. A significant regression equation was found ($F(3, 24) = 28.925$, $p < .000$), with an R^2 of .783 ($\Delta R^2 = .109$). Male client's predicted response was equal to -1.760 + .584 (IMPLEMENTATION) + .449 (EMPATHY FOR MALES) + .182 (MALE INTERACTION), when both therapist's effectiveness of implementation and therapist's empathy towards male clients were measured in points. Male client response .548 points for each point the therapist was rated on for effectiveness of implementation, .449 points for each point the therapist was rated on for empathy towards the male client, and .182 for each unit of the interaction term. Therapist's effectiveness of implementation ($p < .000$), therapist's empathy towards the male client ($p = .003$), and the interaction term ($p = .006$) were all significant, but moderate to strong predictors of male client response. An approximated graph of the moderating effect of empathy in this relationship can be seen in Figure 10.

Female clients. A weighted multiple linear regression was calculated to predict female client response based on the therapist's effectiveness of implementation, and the therapist's empathy towards the female client. A significant regression equation was found ($F(2,25) = 59.503$, $p < .000$), with an R^2 of .826. Female client's predicted response was equal to -4.328 + .666 (IMPLEMENTATION) + .949 (EMPATHY FOR FEMALES), when both therapist's effectiveness of implementation and therapist's empathy towards female clients were measured in points. Female client response increased .666 points for each point the therapist was rated on

effectiveness of implementation and .949 points for each point the therapist was rated on for empathy towards the female client. Both therapist's effectiveness of implementation ($p < .000$) and therapist's empathy towards the female client ($p < .000$) were significant predictors of female response.

Moderation with female clients. To test for possible moderating effects of empathy, the two independent variables therapist's effectiveness of implementation and therapist's empathy towards female clients were centered around their means. An interaction term was then computed by multiplying the two independent variables.

A weighted multiple linear regression was calculated to predict female client response based on the therapist's effectiveness of implementation, the therapist's empathy towards the female client, and if empathy had moderating effects on this relationship. A significant regression equation was found ($F(3, 24) = 93.228$, $p < .000$) with an R^2 of .921 ($\Delta R^2 = .095$). Female client's predicted response was equal to -4.992 + .749 (IMPLEMENTATION) + .925 (EMPATHY FOR FEMALES) + .272 (INTERACTION), when both therapist's effectiveness of implementation and therapist's empathy towards female clients were measured in points. Female client's response increased .749 points for each point the therapist was rated on for effectiveness of implementation, .925 points for each point the therapist was rated on for empathy towards the female client, and .272 points for each unit of the interaction term. Therapist's effectiveness of implementation ($p < .000$), therapist's empathy towards the female clients ($p < .000$) and the interaction term ($p < .000$) were all significant, very strong predictors of client response. An approximated graph of the moderating effect of empathy in this relationship can be seen in Figure 11.

Discussion

Summary of Findings

This study had four main findings: (1) therapists' effectiveness of implementation of the four-step assessment model of structural family therapy (Minuchin, Nichols, & Lee, 2007), and therapists' empathy towards each client had a significant, strong and positive relationship with client response when considered together; (2) empathy was found to moderate this relationship; (3) the therapists were more empathic with the female clients (4) as the therapist's effectiveness of implementation increased, so did the variance of the client response.

When considered separately, therapist's effectiveness of implementation of the four-step assessment model of structural family therapy developed by Minuchin, Nichols, and Lee (2007) was found to have a moderate positive linear relationship with client response ($R^2 = .739$). Therapist's empathy when considered separately for each client, was found to have a weak positive linear relationship with client response ($R^2 = .572$). But when considered together, they had a strong positive linear relationship with client response ($R^2 = .847$).

To put it plainly, the better the therapist, the better the clients responded. This was specifically measured for the four steps separately. For the first step, the therapists' aim was to expand the clients' understanding of the presenting complaint. In the second step, the goal was to help the clients see their own roles in maintaining the problem. Next, an effective therapist for the third step helps clients understand how their past experiences may have predisposed them to respond less than optimally to the presenting problem. Finally, in the fourth step the therapist discusses with the clients how they might be willing to change to improve the family and its problems. This first finding showed that in each step, for the client to reach these goals the therapist must both effectively implement the four-step assessment model and be empathic with the client.

Empathy was also found to be a moderator. When the moderation effect was added to the model, the relationship became a very strong positive linear relationship ($R^2 = .921$). Figure 8 shows the moderating effects of empathy when no assumptions were accounted for. Figure 9 shows the moderating effects of empathy when all the assumptions were accounted for. Figures 10 and 11 show the moderating effects of empathy when all the assumptions were accounted for with males and females respectively. All three graphs use estimated marginal means two show three approximate levels of empathy when rated on the seven-point Likert-style scale used in this study. These help show the finding that the more empathy a therapist shows towards a client, the stronger of a positive relationship there is between client response and therapist's effectiveness of implementation.

In order to explain this in a simpler way, focus on Figure 8. This graph takes the findings, and shows hypothetical outcomes for different scenarios. On the horizontal axis at the bottom, there are three options for how effectively the therapist implemented the four-step model of assessment that was studied. These values are 2, 4, and 6, which are still measured on the scale that ranged from 1 to 7 when rating the therapist on their effectiveness. On the right, there is a scale showing the three options for therapist's empathy towards the client. These are again three hypothetical scenarios in which the therapist was rated 2, 4, or 6, using the same scale that the therapists were rated for empathy ranging from 1 to 7. Now on the vertical axis at the left of the graph, there is a scale of how well a client would hypothetically respond in each of these scenarios. The scale is still from 1 to 7, only zoomed in to only show 1 to 6 so that the graph is easier to see. The scenario of a therapist having a rating of 6 for empathy on the 7-point scale is shown in the top solid line. As you can see the more effective the therapist is according to the options on the bottom horizontal line, the better the client responds. The middle line shows the

hypothetical scenario of the therapist being rated a 4 for empathy. Here, the more effective the therapist, the better the client responds just like the other scenario, but not quite as much. And finally the bottom line shows what would happen if the therapist was only rated a 2 for empathy. The line still slightly increases, but not by very much. This means that the more empathic the therapist is, the more the client response is actually determined by how effective the therapist is in implementing that four-step model.

The third finding is fairly straightforward. Therapists were usually more empathic with the female clients than the male clients. This could be due to therapists being affected by how much the empathy the clients showed, as females have been shown to report higher levels of empathy than men (Baron-Cohen, & Wheelwright, 2004; Davis, 1983; Mehrabian, & Epstein, 1972). Another possible explanation is that the therapists tried to express empathy as needed, and on a whole it might have been needed more for the female clients. When looking at the R^2 values, the model using moderation for females ($R^2 = .921$) was higher than for males ($R^2 = .783$). Although this was not tested statistically for significance, the hypothesis can be seen visually when comparing moderation effects.

Figure 10 shows the moderation effects with specific regards to male clients. Figure 11 on the other hand shows the moderation effects with regard to female clients. It appears that the differences in empathy make a bigger difference in the relationship between therapist effectiveness of implementation and client response in females, than in males.

When looking at Figure 4, it can be seen that as therapist's effectiveness of implementation increases, so does the variability of client response. The lower end has very little variability and is fairly uniformly low. This can possibly be due to the finding about empathy having a significant moderating effect. For example, a bad therapist would almost always have

poor client response. But a good therapist would only have good client responses if they empathized with that client.

Limitations and Future Directions

One of the major limitations of this study was the small sample size of assessed sessions. The sample size was small because the sessions had to be those recorded where the participants had agreed that the session could be used in research, and the therapist had to be implementing the four-step assessment method (Minuchin, Nichols, & Lee, 2007). In addition, analyzing the sessions is an extremely long process due to the training periods, watching and rating sessions, and just general scheduling obstacles. The small sample size reduces the reliability and generalizability of the findings. It also makes any possible outliers have large effects on the data. Future studies would benefit from a much larger, and much more diverse sample size of sessions.

Another limitation is the uneven distribution of therapist's effectiveness of implementation. There were significantly more high ratings of therapists, and few low ratings. This is probably due to the fact that the two therapists in the sessions were expert practitioners. Although this was a deliberate decision in order to study how the four-step assessment model is optimally instead of typically implemented, future studies would benefit from having a more diverse range of therapists, with a range of abilities as long as they were all still trained in this four-step assessment method (Minuchin, Nichols, & Lee, 2007).

A significant, but almost unavoidable limitation of this study was that client raters were able to hear the therapists talk, and the therapist raters were able to hear the clients talk. Although client raters were instructed to concentrate on listening only to client responses, the fact that they could hear what the therapists had said had the potential for biasing the ratings of client responses. Both groups had to be trained in the same four-step assessment model

(Minuchin, Nichols, & Lee, 2007) so that they could rate them on the individual steps, which unfortunately also allowed them to see how well the therapists were doing and how well the clients were responding. Thus, for example, if a client rater heard what seemed like a particularly effective therapist intervention, it might cause them to rate the client response as higher due to them expecting a higher client response. Our impression was that the raters were able to concentrate only on what they were assigned to rate (i.e., therapist interventions or client If the video had been segmented or altered somehow to remove the ability to see the other group, the therapy session itself would not make sense and it would be impossible to rate for either group. This is also a reason why it would be difficult to just rate the male or female clients without paying attention to the other.

Another limitation is the variability in the families themselves. Some families might have come in already willing to change or even possibly having a more systemic view than others. On the other hand, some families might have been abnormally stubborn and come in with strong linear views of the presenting problem. Future studies might consider the possibility of trying to judge this on a case by case basis and then trying to account for it, or show the effects of it.

Also, the therapist unfortunately could not be rated on their implementation separately for each client. In family therapy the therapist works with both clients at the same time, and doesn't take turns with each step on each client. While a question or statement can be directed at one person, more often than not the therapist is working on both clients, and the excessive amount of overlap makes it impossible to somehow divide it up.

Along those lines a possible limitation was that the therapist also could not be rated on empathy for each step for each client. The increasing complexity of this makes it very difficult to attempt this, especially now that you would have the many categories of male and female

empathy and steps for each of them overlapping. This was not seen to be a significant issue as empathy is more a measure of the relationship between the therapist and that client, as opposed to specific actions that take place like with the measurement of the effectiveness of implementation. An overall rating of empathy was thought to be sufficient as it was thought that empathy would accordingly have an overall impact on the client's receptiveness at each stage of the process to the therapist's interventions.

Clinical Implications

First and foremost, this study shows the effectiveness of the four-step assessment model developed by Minuchin, Nichols, and Lee (2007). Effective implementation of the model was positively and strongly correlated with more in-session change with the clients, and as this was a process study in-session change was exactly what was set out to be measured.

It is important to note that although the name four-step model of assessment implies a distinct structure of going from one step to the next, this is not the case, and was not intended to be. The steps only provide guidance as to what areas need to be met and a conceptual order. The boundaries between these steps are fluid and may shift or partially shift order as needed. For instance, step three, a structurally focused exploration of the past, is one of the more significant changes in this model compared to previous ones. A therapist might help explore a client's past, uncover something, and find that they need to go back to step two so that the new information can be helped into a more systemic perspective. This is completely normal and can happen with any of the steps, sometimes due to there being multiple issues with the family, people pushing back, or other reasons. It is merely thought that each step would set the stage for the next one, providing the foundation on which to build a new, healthier family.

Even though this was a process study, step four can have implications for outcomes. This is what makes it such a crucial step in the therapy process. In this step the therapist works with the family to develop a shared vision as to what can be changed for the betterment of the family. Specific improvements are identified, and the therapist inquires to see if the clients are each individually willing to make those necessary changes. This process is generally facilitated by the three previous steps, so that everyone involved has realized the broader picture of the pattern of reactions that are so detrimental to their family's functioning. When they realize this, they are much more willing to do what they personally can to help their family instead of expecting someone else to change. Without this step, families might have gained insight but have no idea what to do with it, effectively not helping the family in the long run.

This is not to say that the other steps are not as important, however. Too often people focus solely on outcomes and not how they got there. Herein lies the importance of process research. Without studying the journey from dysfunctional to functional, many important factors get overlooked, and the careful and deliberate setup that the therapist does to get them to becoming a fully functional family gets neglected. Each of these sections of the method are crucial for an effective step four (working toward effective outcomes), which may be best shown by working backwards.

Previous to the aforementioned step four, there is the third step of exploring past experiences that have significantly affected their functioning today. This is vital in helping the later step four for a number of reasons. Assisting clients in understanding the origin of their actions can help them expand their perspective by going back to as far as their childhood. This allows clients to see how their current beliefs may be influenced by their past experiences, helping them realize they might need to modify their perspective. It is not debunking their

current thoughts, but helping contextualize them so they can understand areas that might be open for change. In addition, without this step, step four would simply be telling people specific things to change. With this step preceding step four however, they now understand why they do things, which understanding can help them avoid contributing to new problems stemming from that same past event that is currently detrimental to their functioning.

For example, in one of the sessions in this study the clients came in complaining that their children were extremely hyperactive and impossible to control. When delving into the mother's past, she talks about her childhood involving her alcoholic and abusive father. She also talks about her unreliable brothers, and how they too are now alcoholics. The therapist helps her connect how this aspect of her past is influencing her present, as she projects her distrust on both the husband and children. For this reason, she hasn't been feeling comfortable letting the father help out with the children as much, and she has been overly controlling of the children because she doesn't trust them alone. This naturally causes the children to rebel and misbehave. Without having recognized this, step four would be completely ineffective as the mother would not know what she might need to change to help the family and if the therapist outright told her it would seem to have no basis and she would fight back against it. She might feel like the therapist is just telling her that she is the problem which is why she needs to change, when in fact nobody is *the* problem and everyone can contribute to beneficial change. Even if this step was skipped and she agreed to change, she would still have this event unknowingly influencing her perceptions of the others in her family, which could crop up in any number of harmful ways. Instead, she is empowered by her knowledge of the significance of her past, and able to remember this for the future.

This is also a notable example of clients coming in with a medical-model view such as children being hyperactive (i.e., ADHD), and them shifting their view from this one to a more systemic view, seeing how they are contributing to this. Also, to be clear, many times in the session other family member's contributions are all brought to light. In an ideal session, everyone would find ways that they are both contributing, and therefore ways that they could help alleviate the presenting problem.

Step two is designed to uncover family members' actions that may unwittingly be contributing to the presenting problem. Until and unless family members begin to recognize their contributions to the family problems, there would be little use in exploring their backgrounds to learn how the came to behave the way they do. Listing things that happened to the clients would not be helpful at all and would take an extremely long time. Unless they realize that there is something problematic about their actions, there would be no point of trying to understand how they came to act that way. In this way step two's process of pinpointing contributing problem areas creates a guide towards what both the therapist and client should be keeping a lookout for when digging into the past.

For example, in an assessment of one family, the parents complained that their daughter was a pathological liar. This again is an example of how the medical-model view is a linear one, and narrows their focus onto one person. In step two it is identified that the parents are constantly watching their daughter, which causes the daughter to feel the need to lie about things such as where she is going in order to attain some privacy. This lying of course causes the parents to feel the need even more to keep a close eye on their daughter, creating a never-ending, increasingly dysfunctional cycle. The mother's reason is that she is worried something terrible will happen to her daughter, and interestingly the therapist asks the father if he knows his wife well enough to

identify what in her past might cause her to feel so worried. The father mentioned a car accident that the mother had previously mentioned that he thought might have been causing distress. The mother described how her first husband, a drug addict, nearly killed her and her infant daughter in an auto accident, and fled the scene while she lay trapped in the car.

This is a good example of how step two can facilitate step three. The problem-maintaining interaction was identified between the parents and the daughter, consisting of the mother's increasingly anxious hovering and the daughter lying more and more. Then, they were able to almost immediately narrow in on something from the past that was influencing the current presenting problem. It is also interesting how the therapist went about it, having previously noted that the two don't connect as much and so the therapist helped them do just that in a constructive way.

Step one is broadening the definition of the presenting complaint to include its context. Without this step, step two would be a verbal battle between the therapist and the clients. Step one helps the shift from a linear to a systemic view, even if that view is not yet complete it opens the family members up to possibilities they had not considered before. For example, one family came in with a fixed view about their son being overly argumentative and disobeying the parents. After the therapists probing questions, they began to consider that they might each have a role in causing him to argue so much and his disobedience. So without that, the clients would resist talking about anyone except for what is called the identified patient (the member of the family who many think is the sole cause of the problem, many times children), and never let the conversation get to anything useful about themselves and their own possible contributions.

Most therapists begin by asking what the problem is that the clients are seeking help for. When the clients describe their primary problem (e.g. a father's depression, a child's

hyperactivity), therapists typically ask questions limited to the presenting symptoms and their history, which only helps to confirm that the problem resides entirely in one person.

In contrast, the first step of the four-step assessment method proposed by Minuchin, Nichols, and Lee (2007) involves the therapist asking respectful, but probing questions. Not only to gather information, but to challenge their notions of linearity. That is not to say gathering information is not an important part. The therapist might also ask two of the family members to talk to each other, in order to see these patterns of interactions that might perpetuate the problems, while intervening if necessary. The only caveat is to make sure the therapist doesn't reinforce their notions of the problem being linear, never fully accepting their explanations for the things going on in their family.

And so it can be seen how each step plays a pivotal role in the therapy process, not only individually but also as part of the larger system employed by this method. A carefully planned out design, that when tailored to each family constitutes an effective way to help them become a healthier and happier family by moving their linear perspective to a larger systemic one.

This study also showed the great importance of empathizing with the clients. Empathy was shown to facilitate the therapy process, and be almost necessary for any real change. It was shown that even with effective assessment interventions, without empathizing sufficiently with the clients there would be little progress. Empathy helped the clients be more open and receptive to what the therapist was saying, and possibly helped combat the natural tendency to feel like the blame might be shifting on to them. If the therapist was not empathic at all though, the client might have felt attacked, and been more likely to put up their shield so to speak. This study reinforces the notion that empathy is a necessary prerequisite, in order to maintain an open line

of communication between the therapist and the client. Otherwise the clients might shut down, ruining any potential for real progress in the future.

From the outset, empathy plays a role by first establishing that vital therapist client partnership that helps the rest of the therapy session. A therapist's opening questions must give family members a chance to tell their stories and express their feelings in order to make them feel understood and gain their trust. Lacking empathy would cause those initial questions to be jarring and caustic. Instead, when the therapist empathizes with the client, they feel more open about talking about things. This makes it easier to get them to discuss things other than just the identified patient, and later broaden their viewpoint.

In the second step of the model empathy helps the therapist circumvent the natural resistance each client feels when the possibility that they are contributing to the problem arises. Because step two involves showing the clients how their actions might be perpetuating the issue at hand, many might feel that this means the blame is shifting to them. Especially if the therapist is being insensitive and directly throwing in their face what they are doing wrong. But if a therapist is empathic and caring, the clients might be more receptive to this new point of view so that they might see how they are in a position to help change the problem.

The third step, because it involves talking about past experiences that are often painful, also requires sensitivity and understanding. Very often as in the previous examples, memories brought up through the course of step three are traumatic. Clients need a gentle hand to help guide them through recounting these experiences, because simply describing them is not enough. They also need to identify how that experience affects them today. And if the therapist is uncaring and abrasive during this, they may never want to open up again.

The fourth step involves empathy because in this method, instead of telling the clients directly what they need to change, the therapist works with them to develop a shared view of how they might do that. The therapist needs to determine with them not only what they can do to change, but who is willing to make those changes. An overly brash and disconnected therapist might either cause the clients to refuse to make those changes, or to even agree to the changes when they don't really want to. This would ultimately be a failure as an unwilling client will not keep up those changes, if they even made them in the first place. Instead an empathic therapist would be one to whom the clients would feel comfortable being honest with so that the pathways to change are realistic and doable.

Despite the importance of empathy in the therapeutic process, findings showed that empathy was not a major factor when the therapist's implementation of this model of assessment was rated as not very effective. Ratings of the clients' response when the therapist had poor implementations of this method were almost uniformly low. This is to be expected as empathy alone cannot fix families. In fact, had the study not found this, it would have brought into question whether there were serious errors in the design. This is because if client response did vary with empathy at low levels of therapy, it would imply that somehow simply being empathic with the clients was somehow changing their view from a linear one to a systemic one. Thankfully, this was not the case and again, ratings were very low when the therapist's effectiveness of implementation was low.

Also, the finding that therapists were usually more empathic with female clients was interesting. It should be noted that both of the therapists in this study were male, which could have affected the results, or the small sample size of the sessions could also have skewed the results. As previously stated this could be due to therapists being affected by how much the

empathy the clients showed, as females have been shown to report higher levels of empathy than men (Baron-Cohen, & Wheelwright, 2004; Davis, 1983; Mehrabian, & Epstein, 1972). Or again it could be due to the therapists feeling that on average the female clients necessitated more empathy to achieve more in-session change, as the graphs seen in Figures 10 and 11 indicated that empathy might be more of a factor for female clients than male clients. Regardless, this finding should cause therapists to be more attentive to how empathic they are being for each client. If they are unknowingly being more empathic with one client than the other and it is noticed, it might cause the client who is not being empathized with enough to feel like they are being ganged up on, or that the therapist is being unfair. This could cause them to shut down just like with the findings of this study about low levels of empathy overall. However, it is possible that even medium levels of empathy, but high discrepancies between empathy for each client could cause this, but further study on this specific phenomenon would need to be done to test if this is really the case.

It is also interesting to note that from a visual comparison of Figures 10 and 11, it appears that empathy has a stronger moderating relationship with female clients. The specific findings for each sex in the results section do show that the specific numbers were different and higher for female clients, but due to the complex nature of all the variables and weights used in these relationships, statistical significance of this difference was not tested. Nevertheless, the differences are easier to see visually. Again this could simply be a result of the design of this study, so these findings should be taken with a grain of salt.

Conclusion

In summary, the study has found that the four-step assessment model developed by Minuchin, Nichols, and Lee (2007) is significantly effective contingent on the amount of

empathy expressed by therapists. Therapists expressed significantly more empathy towards female clients, and empathy might have had a stronger effect with females than with males. This study has shown both the value of this model of structural family therapy, and the critical importance of a therapist being empathic during the therapy process.

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Appendix

Step	Description	Rating Scale						
		1	2	3	4	5	6	7
1. Opening Up the Presenting Complaint	How convinced are they that the identified patient is the sole problem	Very Unconvinced	Moderately Unconvinced	Somewhat Unconvinced	Unsure	Somewhat Convinced	Moderately Convinced	Very Convinced
2. Highlighting Problem-Maintaining Interactions	How aware are they that family interactions are part of the problem	Very Unaware	Moderately Unaware	Somewhat Unaware	Unsure	Somewhat Aware	Moderately Aware	Very Aware
3. Structurally Focused Exploration of the Past	How aware are they of how past family history has affected the development of problematic attitudes	Very Unaware	Moderately Unaware	Somewhat Unaware	Unsure	Somewhat Aware	Moderately Aware	Very Aware
4. Developing a Shared Vision of Pathways to Change	How aware are they of how their behavior needs to change and how willing are they to change	Very Unaware and Very Unwilling	Moderately Unaware and Moderately Unwilling	Somewhat Unaware and Somewhat Unwilling	Unsure	Somewhat Aware and Somewhat Willing	Moderately Aware and Moderately Willing	Very Aware and Very Willing

Figure 1. Rating scale used to rate each of the parents individually.

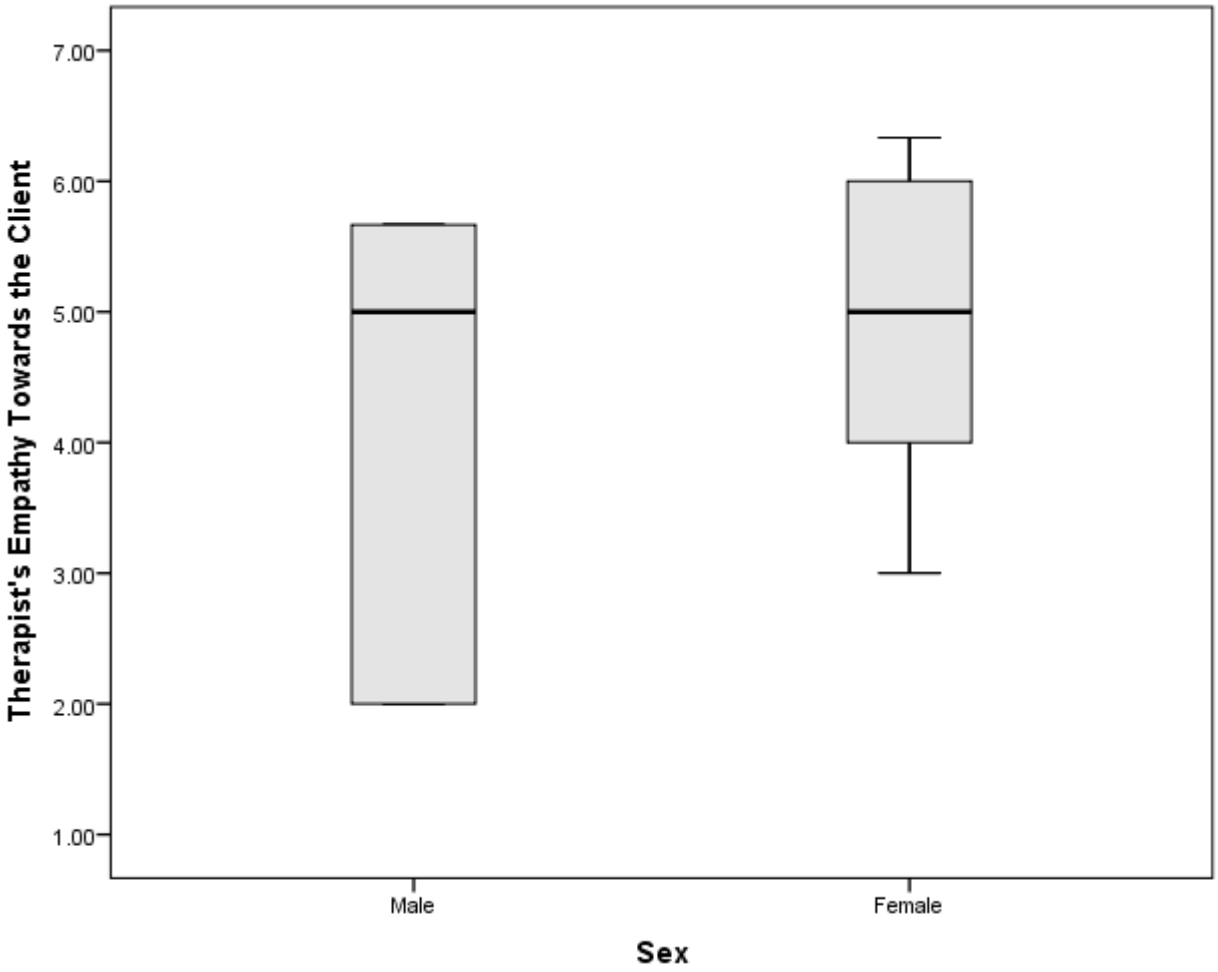

Figure 2. Box-and-whisker plots of sex differences in therapist's empathy towards each client.

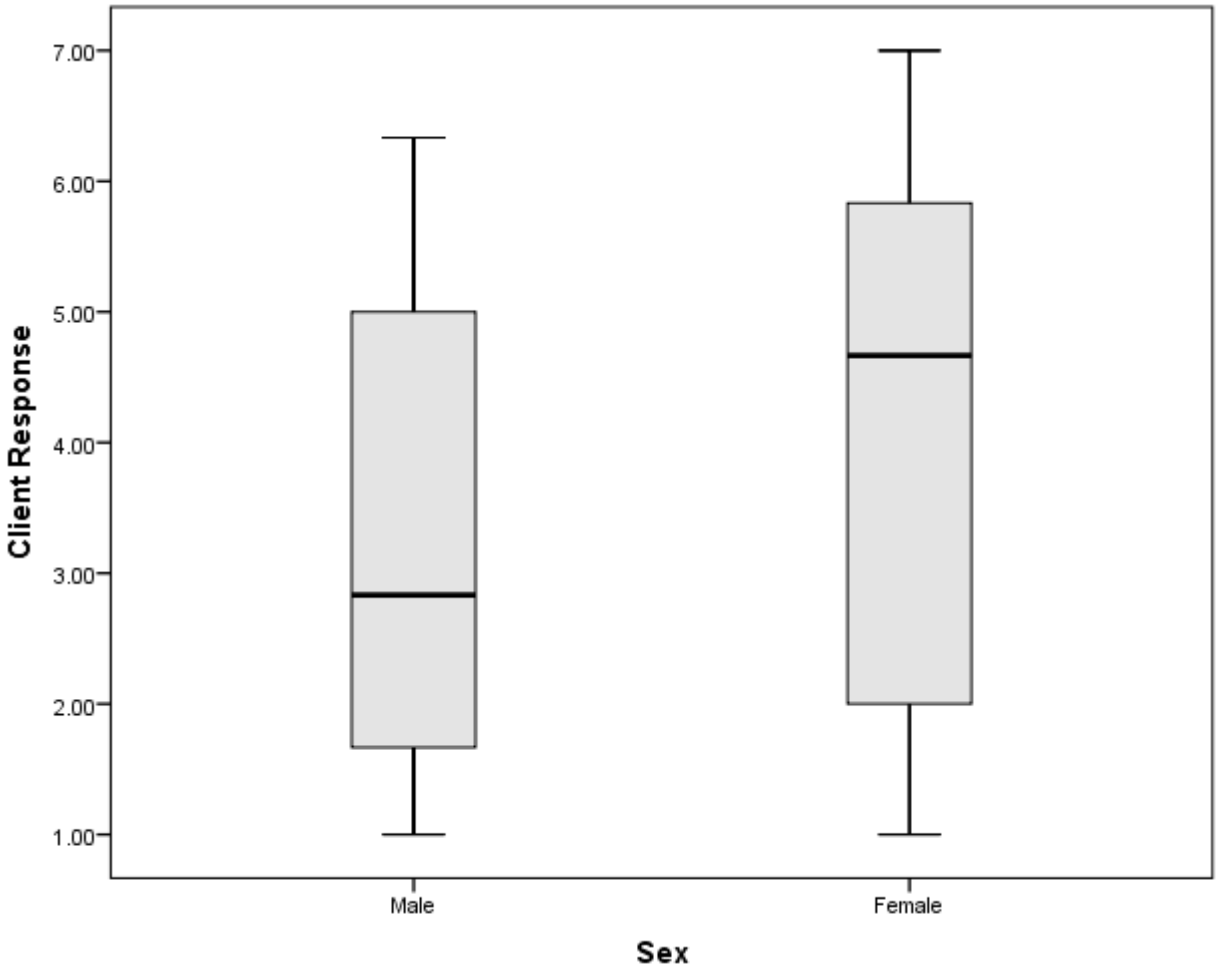

Figure 3. Box-and-whisker plots of sex differences in client responses.

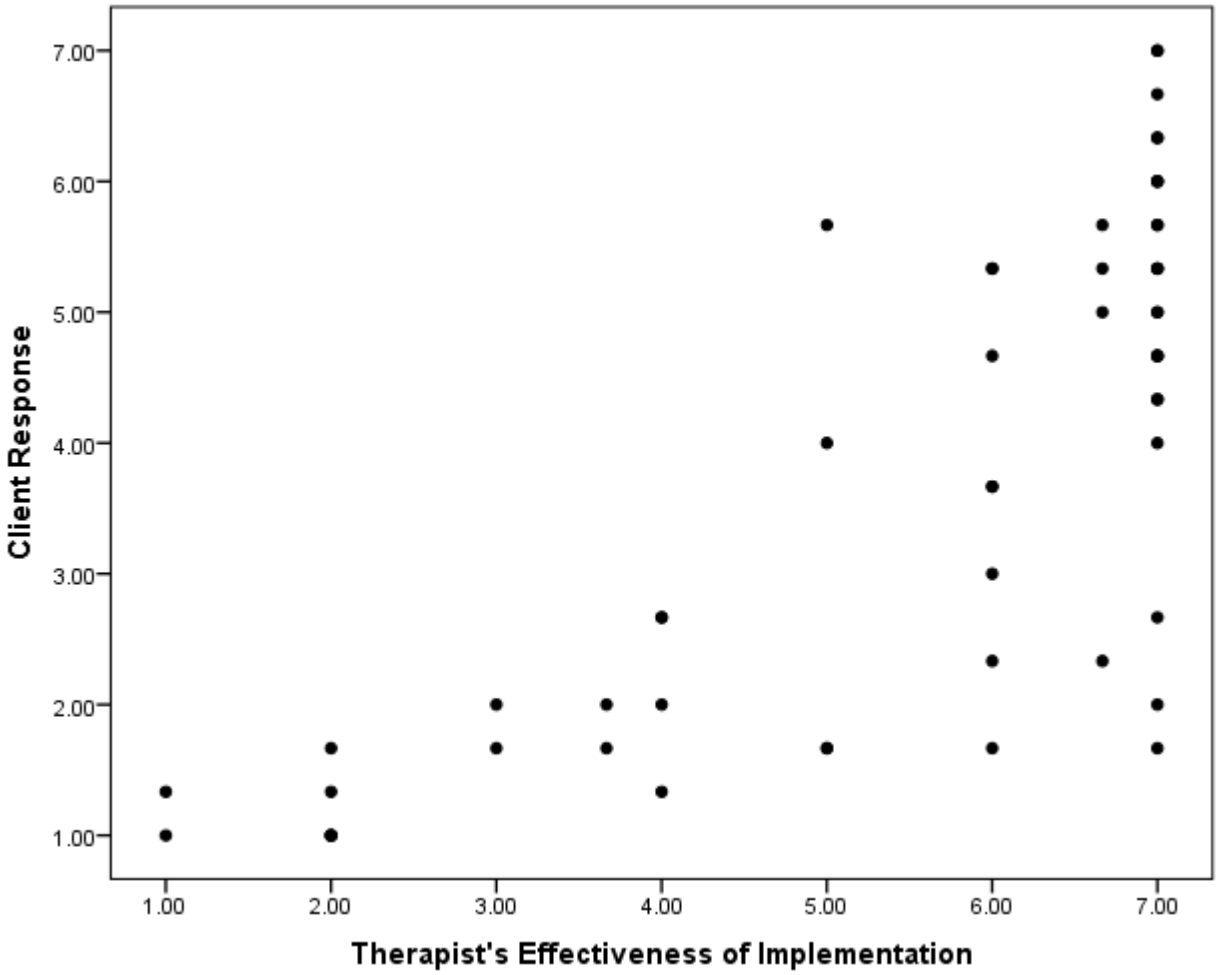

Figure 4. Scatterplot of client response versus therapist's effectiveness of implementation.

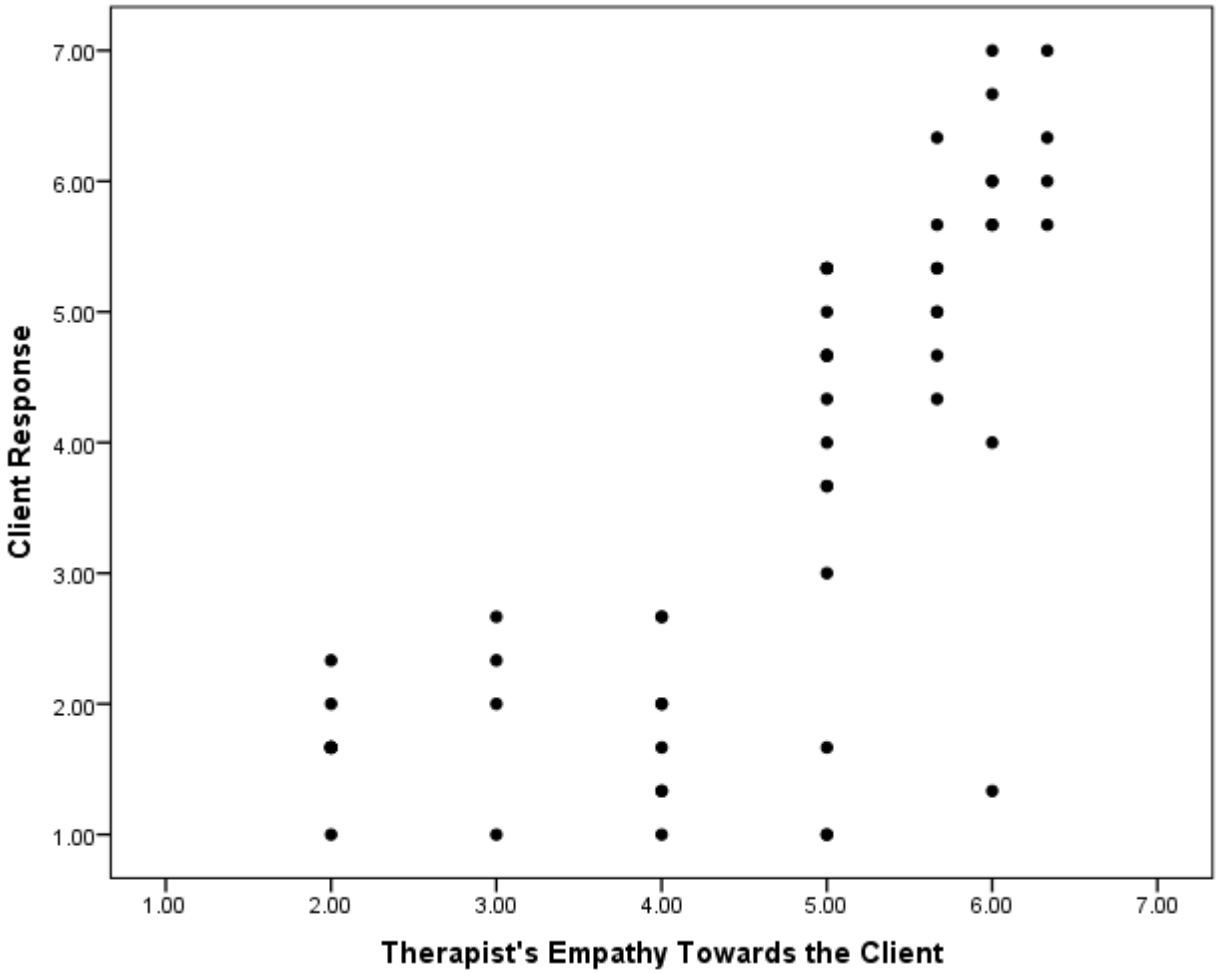

Figure 5. Scatterplot of client response versus therapist's empathy towards the client.

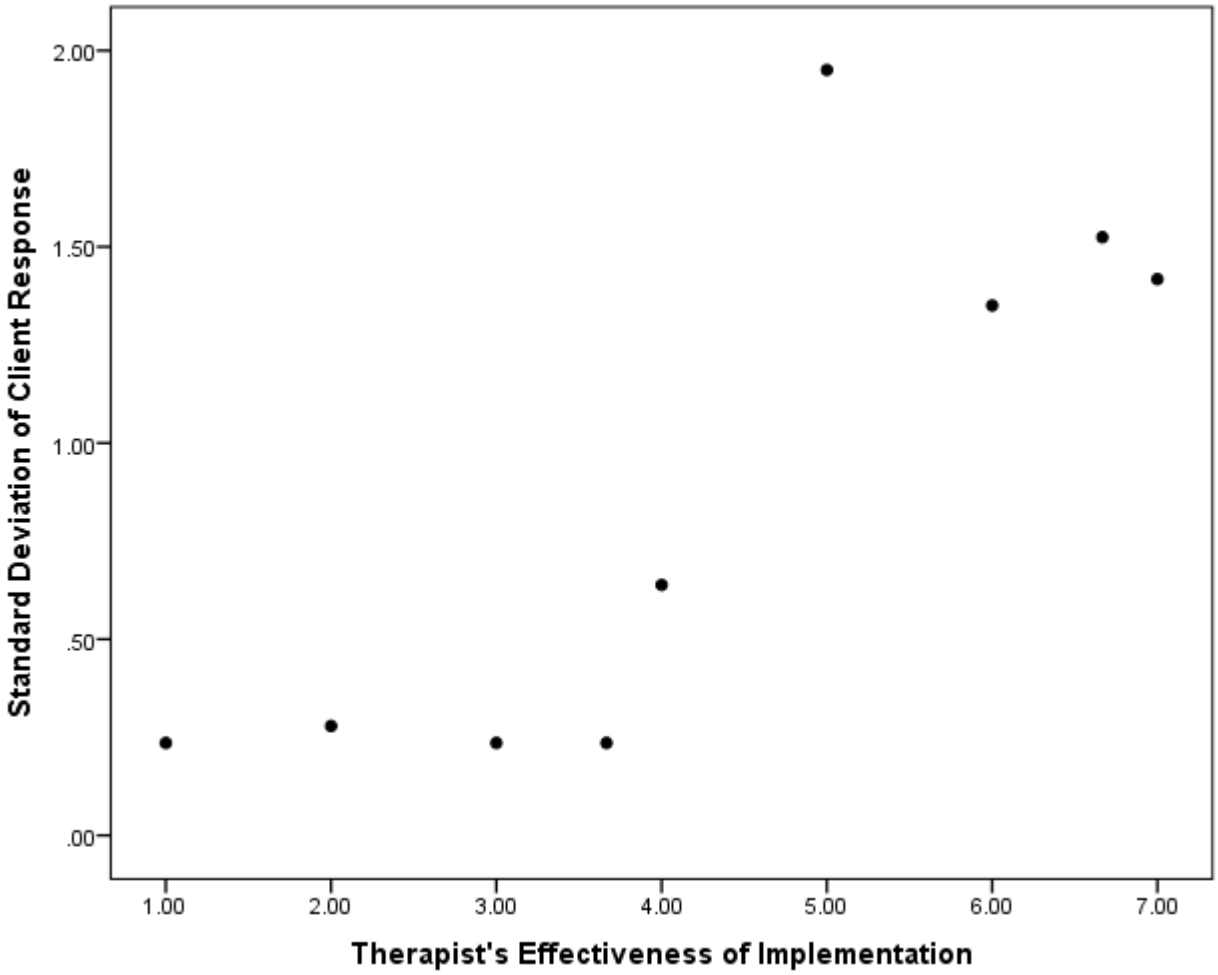

Figure 6. Aggregated standard deviations of client response for every recorded level of therapist's effectiveness of implementation.

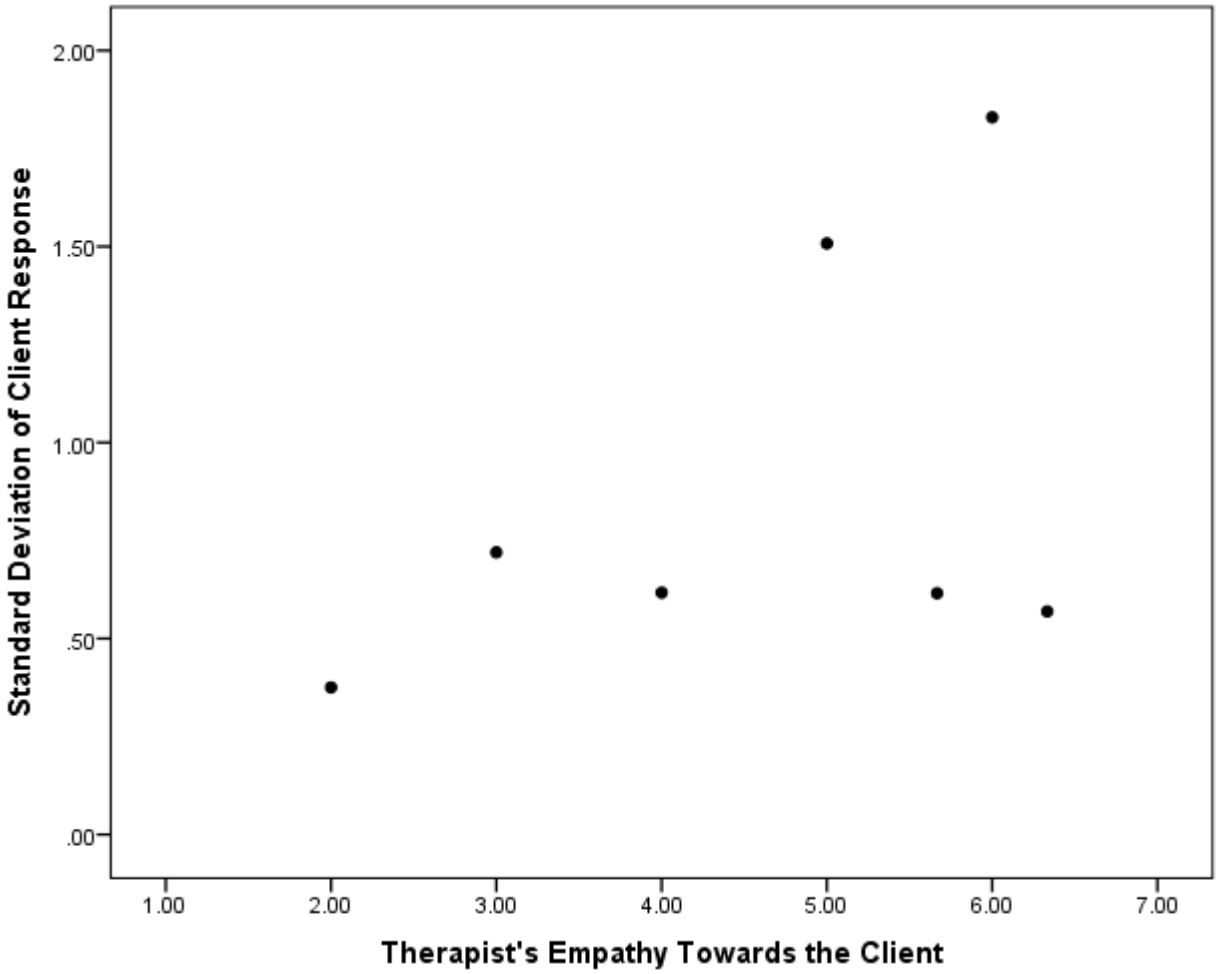

Figure 7. Aggregated standard deviations of client response for every recorded level of therapist's empathy towards the client.

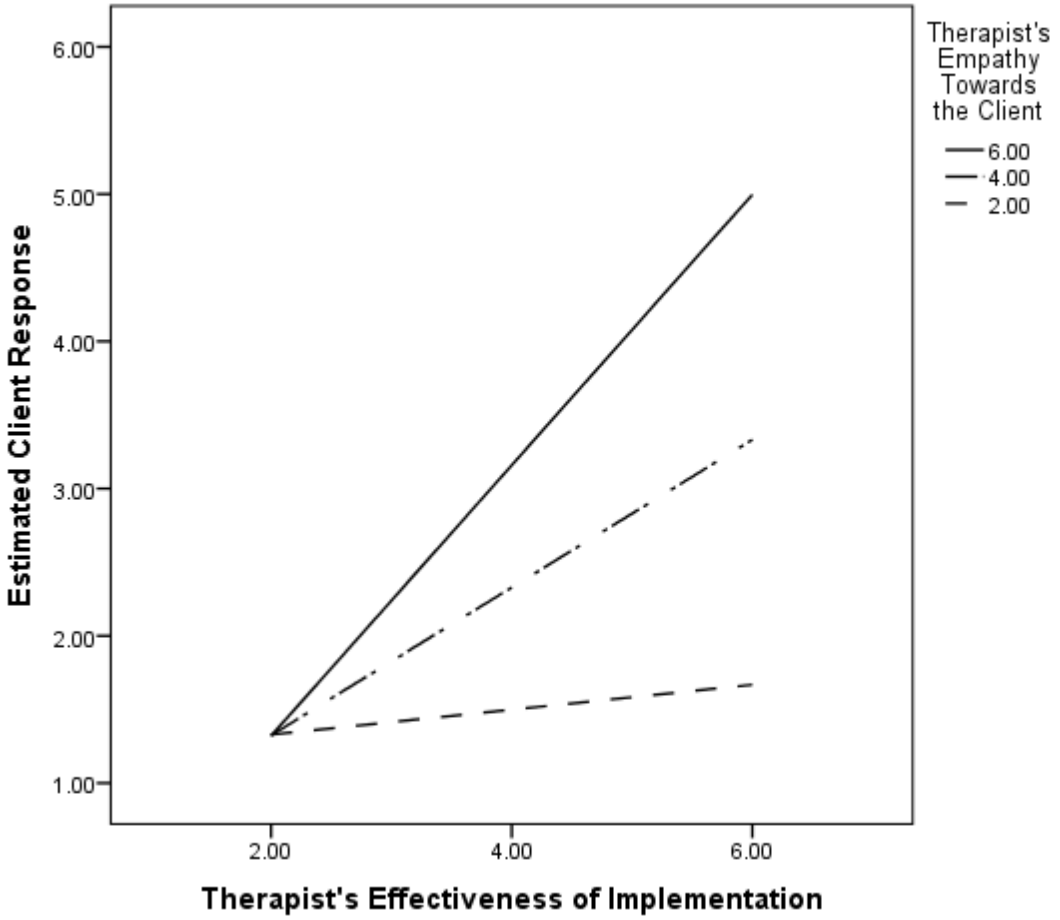

Figure 8. Moderating effect of empathy on the relationship between client response and therapist's effectiveness of implementation.

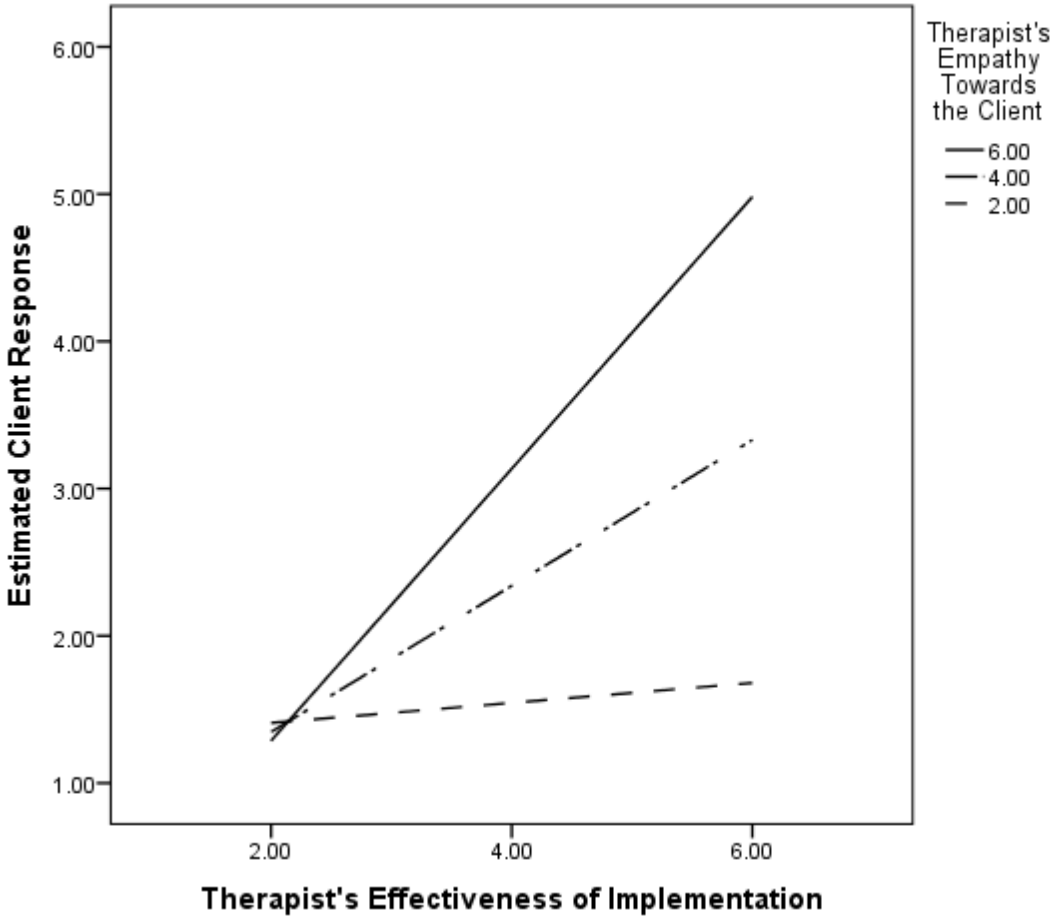

Figure 9. Moderating effect of empathy on the relationship between client response and therapist's effectiveness of implementation when sex and heteroscedasticity are controlled for.

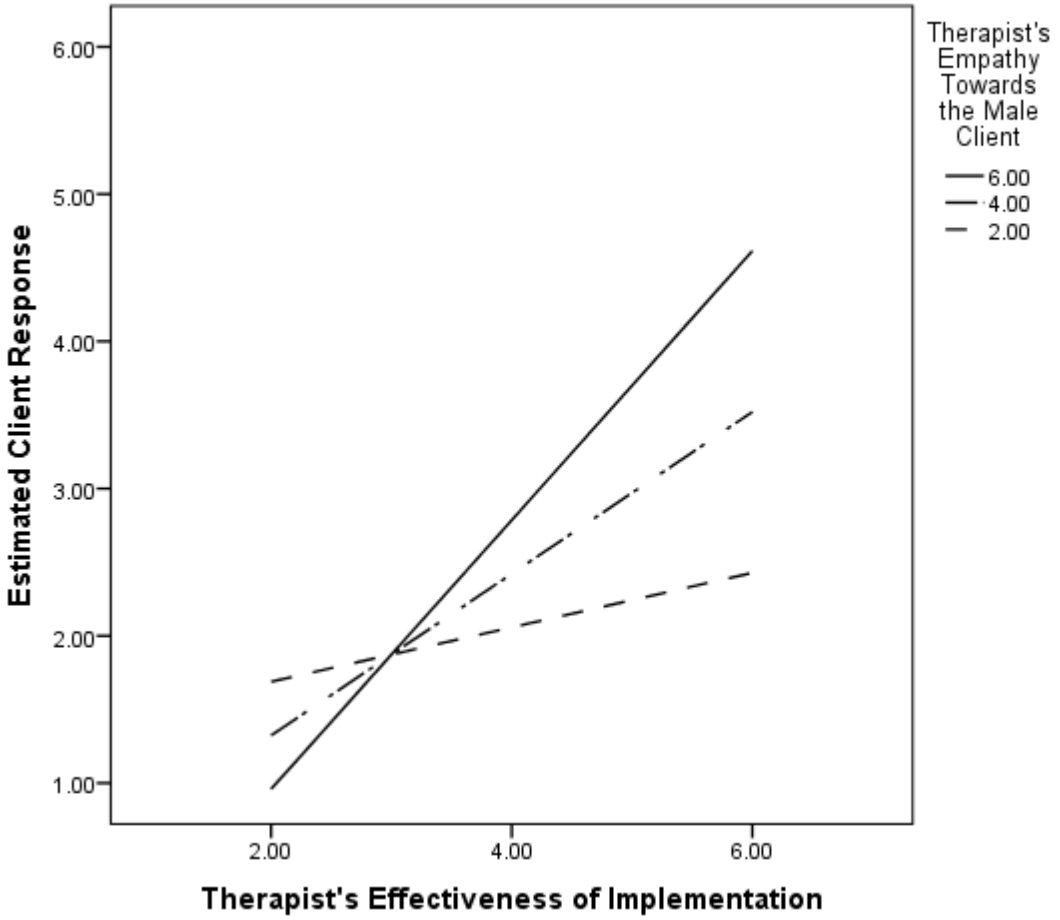

Figure 10. Moderating effect of empathy on the relationship between client response and therapist's effectiveness of implementation in males when heteroscedasticity is controlled for.

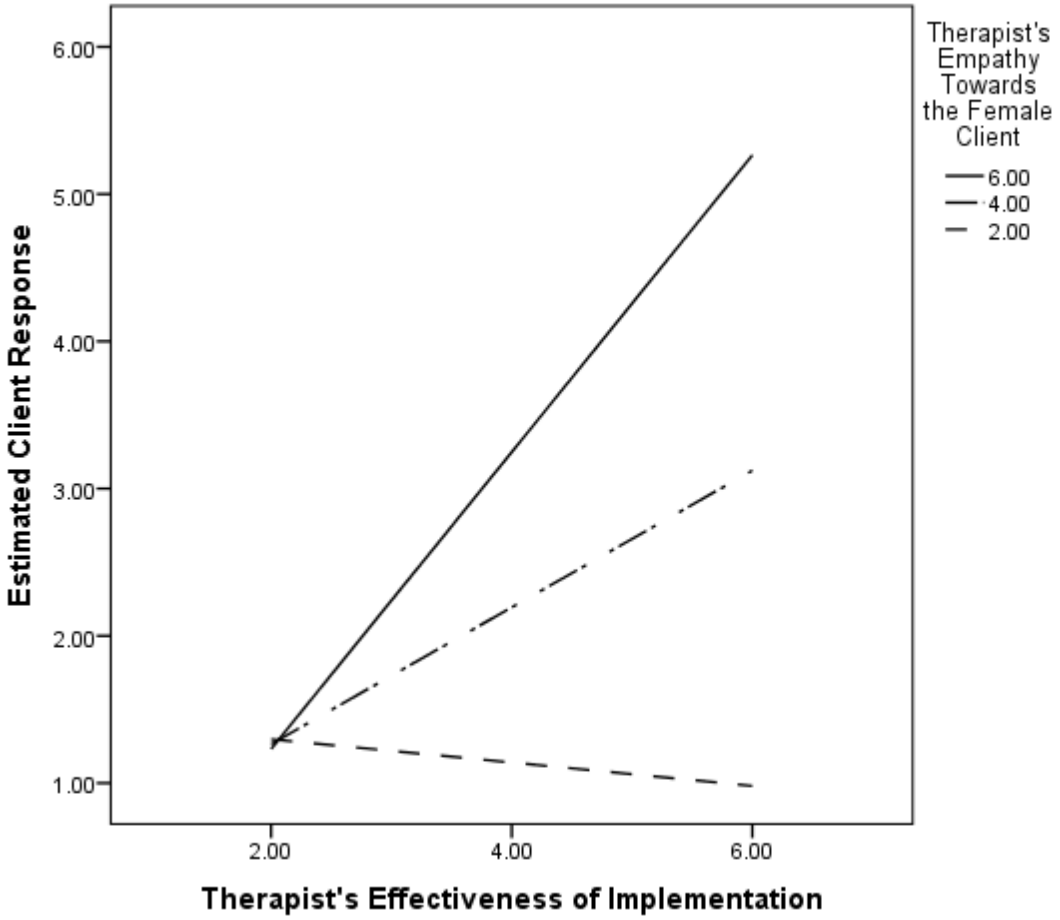

Figure 11. Moderating effect of empathy on the relationship between client response and therapist's effectiveness of implementation in females when heteroscedasticity is controlled for.

Table 1

Pearson Inter-rater Correlations for Client Raters

Correlations

		RaterOne	RaterTwo	RaterThree
RaterOne	Pearson Correlation	1	.786**	.810**
	Sig. (2-tailed)		.000	.000
	N	56	56	56
RaterTwo	Pearson Correlation	.786**	1	.844**
	Sig. (2-tailed)	.000		.000
	N	56	56	56
RaterThree	Pearson Correlation	.810**	.844**	1
	Sig. (2-tailed)	.000	.000	
	N	56	56	56

**. Correlation is significant at the 0.01 level (2-tailed).

Table 2

Spearman's rho Inter-rater Correlations for Client Raters

Correlations

			RaterOne	RaterTwo	RaterThree
Spearman's rho	RaterOne	Correlation Coefficient	1.000	.789**	.800**
		Sig. (2-tailed)	.	.000	.000
		N	56	56	56
	RaterTwo	Correlation Coefficient	.789**	1.000	.841**
		Sig. (2-tailed)	.000	.	.000
		N	56	56	56
	RaterThree	Correlation Coefficient	.800**	.841**	1.000
		Sig. (2-tailed)	.000	.000	.
		N	56	56	56

**. Correlation is significant at the 0.01 level (2-tailed).

Table 3

Pearson Inter-rater Correlations for Therapist Raters

Correlations

		RaterOne	RaterTwo	RaterThree
RaterOne	Pearson Correlation	1	.975**	.944**
	Sig. (2-tailed)		.000	.000
	N	18	18	18
RaterTwo	Pearson Correlation	.975**	1	.945**
	Sig. (2-tailed)	.000		.000
	N	18	18	18
RaterThree	Pearson Correlation	.944**	.945**	1
	Sig. (2-tailed)	.000	.000	
	N	18	18	18

**. Correlation is significant at the 0.01 level (2-tailed).

Table 4

Spearman's rho Inter-rater Correlations for Therapist Raters

Correlations

			RaterOne	RaterTwo	RaterThree
Spearman's rho	RaterOne	Correlation Coefficient	1.000	.938**	.878**
		Sig. (2-tailed)	.	.000	.000
		N	18	18	18
	RaterTwo	Correlation Coefficient	.938**	1.000	.825**
		Sig. (2-tailed)	.000	.	.000
		N	18	18	18
	RaterThree	Correlation Coefficient	.878**	.825**	1.000
		Sig. (2-tailed)	.000	.000	.
		N	18	18	18

**. Correlation is significant at the 0.01 level (2-tailed).