



All Theses and Dissertations

---

2018-11-01

# Stress of Trying Daily Therapy Interventions

Emily Kathryn Hansen  
*Brigham Young University*

Follow this and additional works at: <https://scholarsarchive.byu.edu/etd>

 Part of the [Marriage and Family Therapy and Counseling Commons](#)

---

## BYU ScholarsArchive Citation

Hansen, Emily Kathryn, "Stress of Trying Daily Therapy Interventions" (2018). *All Theses and Dissertations*. 7019.  
<https://scholarsarchive.byu.edu/etd/7019>

This Thesis is brought to you for free and open access by BYU ScholarsArchive. It has been accepted for inclusion in All Theses and Dissertations by an authorized administrator of BYU ScholarsArchive. For more information, please contact [scholarsarchive@byu.edu](mailto:scholarsarchive@byu.edu), [ellen\\_amatangelo@byu.edu](mailto:ellen_amatangelo@byu.edu).

Stress of Trying Daily Therapy Interventions

Emily Kathryn Hansen

A thesis submitted to the faculty of  
Brigham Young University  
in partial fulfillment of the requirements for the degree of  
Master of Science

Lee N. Johnson, Chair  
Angela B. Bradford  
Shayne R. Anderson

School of Family Life  
Brigham Young University

Copyright © 2018 Emily Kathryn Hansen

All Rights Reserved

## ABSTRACT

### Stress of Trying Daily Therapy Interventions

Emily Kathryn Hansen  
School of Family Life, BYU  
Master of Science

This study is focused on clients' daily experiencing of stress, and measures how this stress might affect their implementation of ideas and recommendations from therapy. Typically, clients attend therapy with the intention of making positive changes. Part of the therapeutic process involves clients completing therapeutic work in their daily lives (Conklin, Strunk, Cooper, 2017); however, stressful tasks and other elements often preclude this therapeutic work from occurring (Kazantzis & L'Abate, 2005). In this study we examine which interventions from therapy are most likely to be attempted at home, and the level of stress in making these attempts. A series of multi-level models were used, controlling for daily stress and examining partner effects. This study will be viewed from the conceptual lenses of window of tolerance (Siegel, 1999) and the Yerkes-Dodson law (Hanoch, Vitouch, 2004) on stress.

Keywords: Yerkes Dodson curve, window of tolerance, therapeutic interventions

## ACKNOWLEDGMENTS

I would like to thank my faculty advisor, Lee Johnson, Ph.D. Thank you for helping me expand my educational limits and achieve my academic goals. I would also like to thank my committee members. Angela Bradford, Ph.D., thank you for helping me grow personally and for helping me learn self-care during this process. Thank you, Shayne Anderson, Ph.D., for your edits and helping me develop a foundation in conceptual understanding and editing.

I would like to thank my family and cohort. I will always be grateful for the love, safety, and support you provided during the master's program. I would also like to thank my husband Michael. I am eternally grateful for your continual love, support, and influence.

## TABLE OF CONTENTS

ABSTRACT.....	ii
ACKNOWLEDGMENTS .....	iii
TABLE OF CONTENTS.....	iv
LIST OF TABLES.....	vi
Literature Review.....	1
Window of Tolerance .....	2
Yerkes Dodson Law.....	2
Window of Tolerance & Yerkes Dodson .....	3
Homework & Therapy Interventions.....	5
Stress and Changing from Therapy .....	7
Summary.....	8
Research Questions.....	9
Method.....	9
Participants.....	9
Procedures.....	9
Measures .....	11
Analysis .....	11
Results.....	12
Research Question 1 .....	13
Research Question 2 .....	14
Research Question 3 .....	15
Discussion.....	17

Clinical Implications .....	21
Limitations and Future Research .....	21
Conclusion .....	23
References.....	25

## LIST OF TABLES

Table 1 <i>Daily Stress Correlation Table</i> .....	13
Table 2 <i>Stress of Trying</i> .....	14
Table 3 <i>Therapy Interventions Completed</i> .....	15
Table 4 <i>Multilevel Modeling for Female Trying Something</i> .....	16
Table 5 <i>Multilevel Modeling for Males Trying Something</i> .....	17

### Stress of Trying Daily Therapy Interventions

The primary goal for clients seeking therapy is to achieve positive change in their lives or relationships. However, pursuing change can be a stressful process (Gelo & Salvatore, 2016) and the challenges and obstacles associated with change during treatment can foster discouragement, which in turn may negatively influence clients' progress. Stress can hinder change processes, but it can also be a source of motivation for clients as they progress toward change (Hanoch & Vitouch, 2004).

Work in therapy often develops in one of two forms; interventions guided by the therapeutic model to address presenting problems; and ideas clients identify and try on their own (Kazantzis & L'Abate, 2005). This study will use two theories as a guide to better understand the role stress plays in the change process; the Yerkes Dodson Law (Hanoch & Vitouch, 2004) and the idea of Windows of Tolerance (Ogden, 2009; Siegel, 1999). The Yerkes Dodson Law states that clients need to have the correct amount of stress put on them in order to be motivated to change. The Window of Tolerance, while having some overlap, states that as long as clients stay within their physiological window (e.g. they do not become too stressed), change can occur. To better understand how stress may impact the change process, this study will examine research on therapeutic interventions attempted outside of therapy (both therapist-assigned and client-derived), the stress that accompanies change, and its influence on clients' couple relationships.

### **Literature Review**

This section will discuss the theoretical frameworks of window of tolerance and the Yerkes-Dodson law. Through the lens of these theories, we will explore the research on therapeutic outcomes, and therapy homework. It is important to note there are both positive and negative effects of therapeutic homework that produce client change. One important effect is



stress, and examining the impact it has on therapists and clients in therapy. The following sections will discuss the literature involving stress in many areas of client's lives including stress reduction in therapy.

### **Window of Tolerance**

The window of tolerance (Siegel, 1999), describes how each person has their own personal system or window to manage their physiology. It explains how much stress people can experience before they are in a state of fight/flight (outside the boundaries of their window) where change becomes more difficult (Siegel, 1999). Each individual's window of tolerance varies due to genetic presets and the context of daily events. Siegel (1999) describes that when people face situations that are very stressful or dangerous they move quickly outside the boundaries of their window into fight or flight, which is a more chaotic or rigid state. While our window of tolerance is influenced by genetics it can also be affected by the environment, if someone were to experience multiple stressful events or overall stressful day their window of tolerance could be narrowed to the point they experience a physiological reaction similar to fight or flight, thus contributing to less ability to respond in flexible ways and limiting the change process on a more regular basis. Thus, it is possible that trying to complete a therapeutic homework assignment may contribute to the multiple stressful events that lead to a narrowing of client's window of tolerance and impacting their ability to change.

### **Yerkes Dodson Law**

The Yerkes-Dodson law proposes that performance increases with stress up to point. However, when the levels of stress are too high, performance decreases making change less likely. Teigen (1994) found that people fall on a variety of places on the Yerkes Dodson curve. Some have shown to have too low of performance meaning they are not progressing. Some have

more of an increased arousal, at this point they will reach an optimal level. However, for some, if their arousal continues they will reach emotional disturbance, becoming overly aroused, leading to disorganization, anxiety, frenzy, and panic. Gilbert (1973) found that the inverted U-shape of stress is valid for many variables including motivation, performance, and increasing task difficulty. These three elements are found in our daily diary study. We surveyed clients' motivation to try something from therapy, we marked their performance of trying, and we viewed their stress levels to view the task difficulty.

Additionally, research has validated the Yerkes-Dodson law. The researchers found that it is possible for couples to pass the optimal performance level, and be able to return back to the baseline of optimal performance and functioning (Broadhurst, 1957; Hanoch & Vitouch, 2004). In our study we are viewing the stressfulness of clients completing a therapy task, if clients were able to complete emotion homework past their threshold, they may also be able to return back to optimal performance. Which, could be a goal for therapy. Meaning that clinicians may be able to prescribe interventions that may increase clients stress, up to a point. It is up to the clinician to monitor the balance of change and stress; if they push clients into the 'emotional disturbance, anxiety induced' area clients' performance levels will decrease, and they will be less likely to reach their goals both individually and as a couple (Hanoch & Vitouch, 2004). These two theoretical ideas have important considerations when looking at therapy interventions. While each theory has strengths, there are also ways in which they differ. This next section will describe how these two theories inform this project.

### **Window of Tolerance & Yerkes Dodson**

Clients often attend therapy with multiple stressors and dissatisfaction in their life (Salsman, 2006). When stressful tasks build up and contribute to someone moving outside their

window of tolerance, the stress becomes too much, and flexibility is reduced. Likewise, the Yerkes-Dodson law proposes when clients reach a point past optimal performance, they reach a point of anxiety and panic (Hanoch & Vitouch, 2004; Teigen, 1994). This anxiety and panic can create difficulty to change. Since each client has their own individual window of tolerance, and the width of each person's window can vary on a daily basis (Ogden, 2009; Siegel, 1999), it is an ideal framework to guide research on the influence of trying things from therapy on a daily basis and the stress that may be added to couples in therapy. Additionally, each client can be viewed according to the balance of performance and arousal in the Yerkes-Dodson law, working to try and reach optimal performance both individually and in the relationship. The Yerkes-Dodson law is an ideal framework because of the research on what promotes and hinders change: too little stress does not promote change, but too much can cause panic and a lack of change. In relation to emotional disturbance, as long as clients stay within their window of tolerance, they are able to return to the baseline. Yerkes-Dodson verifies this when stating as long as clients are able to return within limits, reaching outside of the optimal performance does promote growth. Thus, clients in therapy are able to change, as long as they are within psychological boundaries.

Yerkes-Dodson law and window of tolerance work together to create an optimal theory for clients in therapy. As the client's window of tolerance is able to widen and expand, they are able to manage stress in a healthier way. This wider window can help them to have more patience with their partner, themselves, and be able to manage more. As this window expands, and clients manage more stress, they can begin to reach the optimal performance in the Yerkes-Dodson law. Thus, showing that stress can be a source of motivation and helpfulness for clients to change.

### **Homework & Therapy Interventions**

The process of assigning homework in couple therapy has been studied extensively (Dattilio, 2002; Dattilio & Dickson, 2007; Dattilio, Kazantzis, Shinkfield, & Carr, 2011; Hawrilenko, Fleming, Goldstein, & Cordova, 2016). Hawrilenko et al., (2016) found that couples with higher distress levels were less likely to complete daily homework. These researchers also found that couples with children, an additional potential source of stress, were less likely to complete homework. According to Dattilio et al., (2011) one of the most common barriers therapists face is with homework completion. Homework completion is especially a problem with couples that children, those who face negative couple interactions, and those who have a higher overall stress level. The potential stress associated with clients trying interventions from therapy on a daily basis may contribute to a lack of client progress, and impact the therapist's ability to effectively help facilitate change.

Therapeutic interventions have been successful in improving couple satisfaction (Cronin, Lawrence, Taylor, Norton, & Kazantzis, 2015). Research also shows that perceived stress pertaining to increased executive function, positive urgency, and sensitivity to reward improve after couples' therapy (Santos-Ruiz, Robles-Ortega, Perez-Garcia, & Peralta-Ramirez, 2017). This relates to the Yerkes Dodson Law and results of our study, as clients are able to navigate their Window of Tolerance, they can begin to manage stress. Additionally, as the Yerkes-Dodson Law shows, as clients stress is increased, motivation for change can be increased, creating the optimal performance. Thus, they are able to function and reward better due to the optimal performance. While we know that therapy is helpful in creating change, we don't know much about how change occurs within therapy or in the daily lives of clients (Elliott, Slatick, & Urman, 2001). One way therapists expand the influence of therapy sessions is to assign

homework or tasks to be completed outside of therapy. Homework is one of the most commonly used interventions across therapy models, and has shown positive results. Cronin et al., (2015) found that couple therapists who tailor between-session interventions better help their clients reach therapeutic change. These interventions are tailored through the use of relational elements, the therapist takes a collaborative approach to reviewing and planning sessions. The interventions completed from therapy are closely related to couple change. Change is shown to be more effective when it is client driven (Chen, Tsai, Huang, & Wu, 2014). One way to help client's motivation is to promote collaboration at all points of therapy, including in session, out of session, and planning and completing homework (Cronin et al., 2015). Dattilio (2002) explains, the purpose of homework assignments is for couples and families to work to implement change to acquire new behavior. This new behavior is achieved through homework completion outside of therapy, and is a foundational element in changing the couple system. (Mausbach, Moore, Roesch, Cardenas, & Patterson, 2010).

However, while many studies are valuable, they only ask about homework assigned by the therapist, not necessarily therapy interventions that clients attempt on their own (Bogalo & Moss-Morris, 2006; Burns & Spangler, 2000; Dattilio, 2002; Dunn, Morrison, & Bentall, 2006; Rees, McEvoy, & Nathan, 2005). We know from previous research that some clients make change attempts on their own (Johnson, Nelson, & Allgood, 1998; Kindsvatter, Osborn, Bubenzer, & Duba, 2010). This study will look at the interventions that clients are choosing to complete on their own, and the stress levels associated. Thus, it is vital to see what interventions clients find themselves doing outside of therapy, and how those are helpful. This can help us to view more of what is happening in client's daily lives, and help the therapist to manage stress levels (Klages, 2002).

### **Stress and Changing from Therapy**

When clients attend therapy, it is common for their stress levels to be relatively high (Lewandowski, Mattingly, & Pedreiro, 2014). Additionally, many clients attending therapy are probably experiencing dissatisfaction in various areas of their lives. With these initial stress levels, asking clients to complete additional tasks and attend to distressing areas of their lives may potentially create even more stress. This stress can provide motivation according to the Yerkes-Dodson law or become overwhelming to the point of discouragement as described by the ideas found in Windows of Tolerance. For example, as some motivating stress is placed on a client, they are shown to reach an optimal level of performance, creating better results (Teigen, 1994). For the Windows of Tolerance, stress has been shown to negatively impact clients' personal relationships, thus creating a barrier to clients' success (Lei et al., 2016).

Clinical couples in therapy are already stressed (Klages, 2002) and it is this stress or discomfort that partially motivates them to seek treatment, and while interventions focus on relationship improvement and other mental health issues it is also hoped that these interventions will also reduce stress leading to a wider window of tolerance and furthering relationship improvement or at least maintain the appropriate amount of stress prescribed by Yerkes and Dodson. Research shows that added stress can also have a negative influence on couple relationships. Since couple therapy clients are typically attending therapy to improve their relationship, if the tasks associated with therapy are causing added stress, the therapeutic process may be less effective. Mcquaid (1995) found a positive correlation between couples' level of stress and relationship conflict and dissatisfaction, which can lower clients' emotional availability to complete assigned therapy tasks (Siegel, 1999). When clients come to therapy with stressful lives and partner dissatisfaction, it is possible they are being set up for failure when

trying to complete assigned tasks from therapy. Birmingham and Holt-Lunstad (2018) found that relationships can be a potential source of stress when they fail to provide adequate support leading to negative physiological responses or illness. Providing additional support for this claim, Lewandowski et. al (2014) explain that stress is a common experience that all individuals experience; however, it can have negative effects on their lives, including diminished physical and mental health. This, in turn, can lead to a more rigid stance, thus limiting the ability to change (Fisch, Weakland, & Segal, 1991). Research has also shown that stress impacts family, work, education, and social settings (Santos-Ruiz et al., 2017) and contributes to a narrower window of tolerance; all of which can contribute to lower couple satisfaction (Ogden, 2009). Researchers have found that stress causes a negative affect that will interfere with individuals' ability to remember positive elements about their partner (Lewandowski et al., 2014, p. 469). If partners are lacking positive feedback from each other, connection and the process of change will suffer. Thus, stress is one factor that may cause a negative environment for the couple and reduce their ability to focus on change.

### **Summary**

The purpose of this study is to examine the level of stress that clients experience on a daily basis when they try tasks from couple therapy. More specifically, this study will examine the relationship between the stress of trying extra-therapeutic tasks, overall stress, and clients' relationship impacts on a daily basis. The results of this study will be useful in helping therapists decide when to assign tasks outside of therapy within the context of their clients' stress levels.

### **Research Questions**

1. When males and females try something from therapy how stressful do they rate their efforts to try?
2. If male and female clients tried something from therapy, what did they try?
3. If male and female clients did try something from therapy, how does trying something relate to their daily stress?

### **Method**

#### **Participants**

Participants were 33 married or cohabitating heterosexual couples where both partners agreed to participate in the study. The couples were recruited from two family therapy clinics, which were affiliated with university marriage and family therapy programs in the western and southeastern United States. All couples requested couple therapy for the treatment of relationship and other problems. Most participants reported their race as White (83%). The average age for males was 30.7 years ( $SD=6.7$ ), while females reported an average age of 28.8 years ( $SD=6.0$ ). About half of the participants (55%) reported being together for seven years or less. Further, most participants (97%) reported some education beyond high school, and 69% of participants reported an annual income of \$40,000 or less. Roughly, 84% of participants reported being married. Information was collected for a total of 542 days; on average each couple provided information for 16.4 days (range=1-28). Over the course of the entire study, there were a total of 76 therapy sessions, about 2.3 sessions per couple (range=1-4).

#### **Procedures**

At each clinic, couples that requested therapy because of relationship problems were asked if they would be interested in participating in a clinical study (Johnson, Mennenga et al.,



2017). For each participant informed consent was obtained and study procedures were explained. Each day, for the first 28 days of therapy, participants were asked to complete a short questionnaire (up to 20 minutes). Each day, a link for that day's questionnaire was emailed to each participant.

Assessing clients on a daily basis allows a more accurate portrayal of each couple's daily process, thoughts, and change related to daily stress. We hoped that each participant would complete the survey at approximately the same time each day; however, we allowed for them to complete the survey at any time during the evening. The leniency of completion time was given to account for client's busy schedules (Johnson, Mennenga et al., 2017). The beginning of each question was worded to state, "since you last reported." Researchers monitored participation and if a participant did not respond for three consecutive days, a personal email or phone call was made to check to see if the participants had any concerns or questions about completing their daily questionnaires.

One of the benefits of daily assessment is that the respondents report on their daily experiences. This allows for more accuracy in the respondents recalling their daily events, as they have happened on or close to the same day. Each online survey had a date stamp; the dates and times were compared to the day and time respondents reported. This difference is referred to as a "lag". The average lag was 1.36 days (SD=2.33) for males, and 1.07 days (SD=1.59) for females. This showed that participants generally reported about their events the day after the event had occurred. The median lag was 1, with 85.8% of lags being two or less for males and 89.3% of lags being two or less for females. These findings suggest that most people had followed the study protocol correctly, and reported events of the previous day (Johnson, Mennenga et al., 2017).

## Measures

The Daily Diary of Events in Couple Therapy (Johnson, Mennenga et al., 2017) was modeled after the daily inventory of stressful events (Almeida, Wethington, & Kessler, 2002). Each of these questions were measured according to the client's personal report to daily stress. In the first question, clients indicated their stress level ratings from 1-4, 1 being very stressful and 4 being not at all stressful. Additionally, open ended questions were asked that allowed respondents to provide detailed answers to the original question. The questions asked included:

- Did you try anything you learned in therapy since you last reported?
- What did you try?
- How stressful was trying something from therapy?

The first question was answered multiple choice, the options being yes, no, and I choose not to answer. The second question was left open ended. The third question was raked on the scale 1-4.

## Analysis

The use of daily diary data is a valuable approach that can be used when studying couples in therapy as it can help researchers track individuals' daily feelings about their relationships over an extended period of time (Totenhagen, Butler, Curran, & Serido, 2015). In this study, a series of multilevel models were used in STATA 15.1 statistical software to analyze how trying something from therapy may potentially impact clients' daily stress levels. A series of frequency tables were also run to determine the most common responses for males and females on the stressfulness rates of trying, and what interventions they were most likely to try. The dependent variable was daily stress levels, and independent variables included daily relationship effect, what he/she tried from therapy, and stress of trying. Multilevel models were used because of the nature of the nested data. We wanted to look at what occurred on any given day for clients,

which required that we account for the fact that days are nested within clients and within their significant relationship. Multilevel modeling allowed us to account for non-independence while controlling for the influence of partners. We ran a series of multilevel models with the dependent variable being daily stress, controlling for the variables of trying something from therapy, how effective was trying, relationship effects, and what was tried.

### **Results**

Prior to answering research questions correlations between study variables were examined. Results from correlational analysis showed that many of the relationships were significant. Key significant correlations include, female stress of trying something from therapy being significantly related with male daily stress and female daily stress ( $r = .31$ ). Additionally, male stress of trying something from therapy was significantly related to male daily stress ( $r = -.75$ ) and female stress of trying something from therapy ( $r = -.75$ ). Finally, female daily relationship effect was significantly related to female daily stress ( $r = .39$ ) and female stress of trying ( $r = -.36$ ). Daily relationship effect variable shows how positive or negative the partner views their relationship, it is the overall satisfaction and, male daily relationship effect was significantly related to female daily stress ( $r = .30$ ) and male daily stress ( $r = .22$ ). These correlations show the effects of the variables when compared against each other. See Table 1 for correlations, means, and standard deviations of study variables.

Table 1  
*Daily Stress Correlation Table*

	1	2	3	4	5	6
F Daily Stress	--					
M Daily Stress	.31***	--				
F Stress of Trying	-.75***	-.21**	--			
M Stress of Trying	-.08	-.75***	.25*	--		
F Daily Relationship Effect	.39***	.03	-.36***	-.01	--	
M Daily Relationship Effect	.30***	.22**	.07	-.13	.18	--
Mean (SD)	1.68 (.74)	1.58 (.71)	3.51 (.72)	3.36 (.72)	1.92 (.77)	

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$

*Note.* F indicates female; M indicates male.

### Research Question 1

Research question one asked, when males and females try something from therapy how stressful do they rate their efforts to try? Results show most male clients reported no stress associated with trying something from therapy. However, the majority of female clients reported some stress or higher with trying something from therapy. Additionally, very few male and female clients reported it being very stressful, for complete results see Table 2.

Table 2  
*Stress of Trying*

Stress	Frequency	Percentage
<b>Female Stress</b>		
Not at All Stressful	123	47.6%
A Little Stressful	109	42.2%
Stressful	16	6.2%
Very Stressful	7	2.7%
<b>Male Stress</b>		
Not at All Stressful	114	60.3%
A Little Stressful	54	28.6%
Stressful	12	6.3%
Very Stressful	4	2.1%

### Research Question 2

Research question two asks: if clients tried something from therapy, what did male and female clients try? Johnson, Mennenga et al. (2017) found females tried something from therapy some of the time (19.9%), and males tried something from therapy a few times (13.1%) out of days where clients reported trying something, showing how often clients try something from therapy. For females, the most common intervention they tried from therapy was no event (not trying one) 64.2% ( $n=450$ ). Subsequent reports show that communication technique 24.4% ( $n=171$ ), doing something with their partner 4.3% ( $n=30$ ), and worked on self 2.6% ( $n=18$ ; see Table 3) were other interventions females tried. Results also show that trying no event 68.8% ( $n=403$ ), communication technique 15.2% ( $n=117$ ), doing something for their partner 4.0% ( $n=31$ ), and doing something with their partner 2.5% ( $n=19$ ; see table 3) were other interventions males tried. Meaning, that males and females are likely to try communication techniques when given the opportunity to create therapy interventions. This could be due to the popular nature and importance of communication in couple therapy.

Table 3  
*Therapy Interventions Completed*

Interventions	Frequency	Percentage
<u>Female Therapy Interventions</u>		
No Event Happened	450	64.2%
Communication Technique	171	24.4%
Did Something With Partner	30	4.3%
Worked on Self	18	2.6%
Did Something For Partner	16	2.3%
Showed Support/Affection	16	2.3%
<u>Male Therapy Interventions</u>		
No Event Happened	403	68.8%
Communication Technique	117	15.2%
Did Something With Partner	19	2.5%
Worked on Self	9	1.2%
Did Something For Partner	31	4.0%
Showed Support/Affection	7	.9%

### Research Question 3

Research question three asks, if clients did try something from therapy, how does trying something relate to male and female clients daily stress? To answer this question, we ran a separate multilevel model for males and females. Within each model we controlled for what was tried from therapy and the overall rating of the relationship on that day. We also controlled for the partner's variables in each model. The overall model for females was significant ( $Wald \chi^2 = 178.55, p < .001$ ). Within the multilevel model, female daily stress was significant predicted by the stress of females trying something from therapy ( $b = -.49, p < .001$ ). In other words, as the stress of trying something decreased, females daily stress increased. Thus, therapy tasks need to be stressful enough in order to produce change, supporting the Yerkes Dodson Law. Further, females' ratings of the relationship were also significant ( $b = -.46, p < .001$ ) showing that her daily relationship also contributes to her daily stress. If her daily relationship effect is viewed as not satisfying or struggling, then females' daily stress will increase.

Table 4  
*Multilevel Modeling for Female Trying Something*

Female Daily Stress	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
<b>Interventions</b>						
Female Did Something for Partner*	.01	.19	.03	.98	-.38	.39
Female did Something with Partner*	-.04	.21	-.23	.82	-.46	.37
Female Communication Technique*	.39	.17	.29	.78	-.45	.60
Female Worked on Self*	.07	.27	.29	.78	-.45	.60
Female Stress of Trying Something	-.49	.09	-5.54	<.001	-.66	-.31
Male Did Something for Partner*	-.33	.27	-1.23	.22	-.87	.20
Male Did Something with Partner*	-.26	.30	-.87	.39	-.83	.32
Male Communication Technique*	-.29	.26	-1.13	.26	-.79	.21
Male Worked on Self*	-.46	.30	-1.52	.13	-1.05	.13
Male Stress of Trying Something	-.02	.07	-.29	.77	-.15	.11
Female Trying Something Effect Relationship	-.002	.08	-.03	.98	-.17	.17
Male Trying Something Effect Relationship	.08	.08	1.10	.27	-.07	.23
Female Daily Relationship Effect	-.46	.10	-4.40	<.001	-.67	-.26
Male Daily Relationship Effect	-.05	.04	-1.07	.28	-.13	.04

Note: \*Categorical Variable

For males, the overall model was significant ( $Wald\chi^2 = 119.83, p < .001$ ). Within the multilevel model, male daily stress was significant predicted by the stress of males trying something from therapy ( $b = -.67, p = .001$ ). In other words, as the stress of trying something decreased, males daily stress increased. Thus, showing the importance of trying something from therapy, the tasks competed have to be stressful enough to produce change, as seen in the Yerkes Dodson Law.

Table 5  
*Multilevel Modeling for Males Trying Something*

Male Daily Stress	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
<b>Interventions</b>						
Male did Something for Partner*	-.31	.37	-0.83	.41	-1.03	.41
Male did Something with Partner*	-.37	.39	-0.95	.34	-1.16	.40
Male Communication Technique*	-.32	.35	-0.93	.35	-.99	.36
Male Worked on Self*	-.58	.41	-1.42	.15	-1.38	.22
Male Stress of Trying Something	-.67	.09	-7.35	<.001	-.85	-.49
Female Did Something for Partner*	-.22	.27	-0.81	.42	-.76	.32
Female Did Something with Partner*	.28	.30	.97	.33	-.29	.85
Female Communication Technique*	.02	.23	.10	.92	-.43	.48
Female Worked on Self*	-.21	.36	-.58	.56	-.93	.50
Female Stress of Trying Something	-.11	.12	-.91	.36	-.34	.12
Female How Effective was Trying	-.03	.12	-.22	.83	-.26	.21
Male How Effective was Trying	.12	.10	1.15	.25	-.08	.32
Female Daily Relationship Effect	-.25	.14	-1.75	.08	-.53	.03
Male Daily Relationship Effect	-.07	.06	-1.17	.24	-.17	.04

Note: \*Categorical Variable

## Discussion

This study focused on the stress levels clients experience on a daily basis and how much of an impact trying something from therapy at home has on daily stress levels. First, we looked at the stress of both male and female clients trying something from therapy. Results showed nearly half of females 48% and 60% of males marked trying a therapy intervention as not at all



stressful. However, the majority of females rated trying something from therapy as a little stressful or higher. Previous research has shown that it is difficult for clients to complete therapy tasks due to the number of other tasks they have to complete (Serido, Almeida, & Wethington, 2004). This might play a role in clients' stress levels from trying something from therapy. If clients are already stressed while entering therapy, then we don't know how high the therapy interventions will move their stress, if they are already a part of a stressed system. Adding stress to someone who has very little stress will make a large impact, however adding stress to an already stressed person, will have less of an impact.

Second, findings show that males and females are most likely to try nothing from therapy. This could relate to the already stressed system. If clients are too stressed to try something from therapy, they are not going to fall outside of the window of tolerance to complete the tasks (Siegel, 1999). Additionally, they could be too far past the point of optimal performance in the Yerkes Dodson curve, and the homework could create more harm (Teigen, 1994). Timmons, Arbel, & Margolin (2016) found, that daily stress was associated with marital conflict. Furthermore, couples who fail to recover from previous stressors or patterns noticed more stressors and an inability to recover from them. Males and Females are second most likely to try a communication technique therapy intervention. Gottman (1999) has found that communication is a vital component to a couple's relationship. Thus, clinicians are likely to assign communication techniques to clients, causing communication technique to be a common intervention assigned. Furthermore, research has shown that communication is a likely presenting problem in couple therapy (Doherty & Simmons, 1996) so couple therapy clients may also try to improve communication with their own ideas of how to help improve the relationship. Another likely intervention for males to try was an act of kindness. This finding supports

previous research by Passmore & Oades (2015) who found that acts of kindness help to build the relationship foundation and promote satisfaction in the partner completing the act of kindness.

The third most likely intervention for females to try was to let things go. Research by Lev & McKay (2017) found that couples who were able to let things go and not hold a grudge are able to connect quicker and more effectively. This shows, that male and female clients may be likely to want to try to let things go to try and improve their relationship.

Finally, we explored how stressful it was for male and female clients to try something from therapy and the influence of this stress on their overall daily stress. The results showed, the stress of trying something from therapy for females and the female relationship effect were both significant predictors of daily stress. For females trying something from therapy increased as overall daily stress decreased. This shows the window of tolerance, as females are able to manage daily stress better and it is decreased, they are able to complete more tasks such as interventions from therapy. Additionally, as female relationship effect increased, female daily stress decreased. As females view the relationship as being better, then female stress is going to decrease because they are seeing positive results. Ogden (2009) and others found that as the relationship is observed as being better, the stress levels of females' decrease (Gillespie, Davey, & Flemke, 2015; Siegel, 2012). For males, the results showed that as the stress of trying something from therapy increased, male daily stress decreased (Gilbert, 1973; Salsman, 2006; Siegel, 1999; Teigen, 1994). This interesting finding relates to the Yerkes Dodson curve and window of tolerance. As males are able to manage their window of tolerance better, creating a wider window and more regulation, they are able to try more things from therapy. As that stress of trying something is placed on them, they are able to reach the optimal performance in the Yerkes Dodson curve, thus creating more positive results, leading to daily stress being decreased.

There was also a partner effect: as female daily relationship effect increased, male daily stress is decreased. It can be assumed that as females view the relationship as better, male daily stress will decrease due to the positive view on the relationship. Gottman (1999), shows that partners effect each other's stress levels, and as male stress goes down, their relationship satisfaction increases. Results also showed as female daily stress increases, the relationship effect for males is decreased. Siegel (1999) explains how each person has their own personal physiology and without regulating their own physiology, the partner's physiology can impact the personal physiology including stress (Salsman, 2006; Siegel, 1999). Furthermore, Hanoch & Vitouch (2004) found that according to the Yerkes-Dodson model, couples are more likely to reach optimal performance, but sometimes continue past it for emotional work in a relationship. When clients attend therapy, they can be pushed past optimal performance levels related to emotions in order to regulate. There is a possibility that stress levels are so high in therapy adding an additionally task does not dramatically increase the feeling of stress.

Overall, there were common themes in this research. First, male and female stress of trying a therapy intervention is related to client daily stress. The completion of therapy interventions and decrease in client daily stress is related to the Yerkes-Dodson model, which states that as stress increases, clients can surpass optimal performance, leading to stress and anxiety (Hanoch & Vitouch, 2004). Second, as the relationship effect decreases, the daily stress levels increase, creating a more effective, healthier relationship. This is related to Siegel's (1999) research, showing that client relationships and physiology have an impact on the couple system as well as the individual system. Overall, for male and female clients trying interventions from therapy contributed to some stress. These findings suggest that clinicians need to be mindful about the homework assigned to clients and how it might impact their stress levels.

### **Clinical Implications**

This study suggests implications for clinicians who are involved in assigning therapeutic interventions to couples. First, clinicians need to be aware of how frequent homework and other interventions are being used outside of therapy. This is important in order to prevent further dysregulation. In the future, clinicians need to create a collaborative approach that helps the clients and therapist to work in unison (Cronin et al., 2015). An example of working in unison may be therapists checking in about clients' daily stress levels and stress levels associated with completing homework. This form of treatment planning will help clients to stay motivated and improving (Chen et al., 2014).

Second, our results showed both male and female clients were most likely to try nothing from therapy. Clinicians need to be aware of the homework clients are unable or less likely to complete, and why. Within homework completion, therapists should also ask about both male and female client derived homework. The second most likely attempt was at communication techniques. Communication techniques are a vital aspect of the couple relationship and couple's desire for change in their relationship (Gottman, 1999). Thus, clinicians are likely to assign communication techniques for homework, showing that clients could be more willing to try. The clinician needs to work with clients to understand their feelings and position behind trying interventions outside of therapy.

### **Limitations and Future Research**

There are a few limitations of this study. First, daily diary responses are not always consistent and are self-reported by the participant. We attempted to have clients take the survey at the same time each day, however this is difficult to enforce when they are self-reported within

the client's daily environment. However, research (Stone, & Shiffman, 2002) has shown that self-report is not a problem with daily diary studies.

Additionally, we did not specifically ask partners to report on their significant other's completion of homework. Studies have looked at the impact of therapy homework (Bogalo & Moss-Morris, 2006; Burns & Spangler, 2000; Dattilio, 2002; Dunn et al., 2006; Rees et al., 2005) but few have studied the systemic dynamics from therapy homework/doing work outside of therapy, these studies have looked at individual homework completion. Future research should examine the systemic dynamics within the client's life, to see if clients notice their partner's efforts and how those impact each other. Future research should more specifically examine the stress levels of clients completing homework. For example, "How stressful does the participant perceive trying something from therapy is for their partner?" Clients reported on trying something from therapy. It is possible that clients did not recall the homework, or were more/less stress about the homework depending on the time of day, events, and last time they attended therapy.

There also are limitations associated with construct validity. The DDECT questionnaire has not been validated. However, the DDECT has been used in previous research (Johnson, Selland et al., 2017; Johnson, Mennenga et al., 2017; Johnson et al., 2018). Further, daily diary methods have been shown to be effective in studying clients' daily lives (Stone & Shiffman, 2002). Stone & Shiffman (2002) also show that daily diary methods and procedures are reliable and valid. Future research studies should work to validate the DDECT questionnaire.

There may be a problem with our definition of stress used in this study. In this study, the definition of stress is left up to the participants' interpretation without specifying the level of stress. The Diagnostic and Statistical Manual of Mental Disorders (DSM-5) classifies stress

disorders as either Acute Stress Disorder or Post Traumatic Stress Disorder. In this study we did not diagnose clients with a stress related disorder. Meaning that clients could have varied in their reports of levels of stress, limiting generalizability to specific disorders. However, stress is a universal term, so the familiarity of the concept shows that misunderstanding may be less likely. Additionally, we did not account for baseline stress levels to know how stressful it would be to add on an additional therapy task.

Lastly, the present sample size and demographics were limited. The study sample size was 33 couples, most of them White adults. Further, the context of this study was a treatment as usual clinic. Due to the lack of cultural, racial, and regional demographics, including the small sample size, findings from this study may be difficult to generalize to other clinical populations.

Future research should explore a variety of demographics and elements of the client's personal life. Future research should also expand the scope of trying something from therapy. Examples of questions could include:

1. How does trying something from therapy impact their family life and children?
2. How much of an impact does trying something from therapy have on their work life?

Future research should also focus on factors that may prevent clients from completing therapy interventions at home. Despite these limitations, this study offers valuable information to clinicians and researchers who work with couples and their stress levels.

### **Conclusion**

This study was focused on determining if male and female attempts at daily therapy interventions impacted their daily stress levels. We also reviewed partner effects, showing that what male and female clients tried from therapy and daily relationship was predictive of their partners daily stress. Furthermore, the majority of clients reported an increase in daily stress

levels. So, therapy interventions may contribute to clients' daily stress. Overall this study can help clinicians be mindful of client stress and the potential efficacy of assigning homework.

## References

- Almeida, D. M., Wethington, E., & Kessler, R. C. (2002). The daily inventory of stressful events: An interview-based approach for measuring daily stressors. *Assessment, 9*(1), 41–55. <http://doi.org/10.1177/1073191102091006>
- Birmingham, W. C., & Holt-Lunstad, J. (2018). Social aggravation: Understanding the complex role of social relationships on stress and health-relevant physiology. *International Journal of Psychophysiology, 131*(1), 13-23. doi:10.1016/j.ijpsycho.2018.03.023
- Bogalo, L., & Moss-Morris, R. (2006). The effectiveness of homework tasks in an irritable bowel syndrome self-management programme. *New Zealand Journal of Psychology, 35*(3), 120–125.
- Broadhurst, P. L. (1957). Emotionality and the Yerkes-Dodson Law. *Journal of Experimental Psychology, 54*(5), 345-352. doi:10.1037/h0049114
- Burns, D. D., & Spangler, D. L. (2000). Does psychotherapy homework lead to improvements in depression in cognitive-behavioral therapy or does improvement lead to increased homework compliance? *Journal of Consulting and Clinical Psychology, 68*(1), 46–56.
- Chen, W.C., Tsai, Y.L., Huang, H.H., & Wu, K.C. (2014). The analysis of how clients cope with dependency conflict in relational counseling approaches. *Bulletin of Educational Psychology, 46*(1), 141–163.
- Conklin, L. R., Strunk, D. R., & Cooper, A. A. (2017). Therapist behaviors as predictors of immediate homework engagement in cognitive therapy for depression. *Cognitive Therapy and Research, 42*(1), 16-23. doi:10.1007/s10608-017-9873-6



- Cronin, T. J., Lawrence, K. A., Taylor, K., Norton, P. J., & Kazantzis, N. (2015). Integrating between-session interventions (homework) in therapy: The importance of the therapeutic relationship and cognitive case conceptualization. *Journal of Clinical Psychology, 71*(5), 439-450. doi:10.1002/jclp.22180
- Dattilio, F. M. (2002). Homework assignments in couple and family therapy. *Journal of Clinical Psychology, 58*(5), 535-547. doi:10.1002/jclp.10031
- Dattilio, F. M., & Dickson, J. (2007). Assigning homework to couples and families. *Cognitive and Behavioral Practice, 14*(3), 268-277. doi:10.1016/j.cbpra.2006.10.007
- Dattilio, F. M., Kazantzis, N., Shinkfield, G., & Carr, A. G. (2011). A survey of homework use, experience of barriers to homework, and attitudes about the barriers to homework among couples and family therapists. *Journal of Marital and Family Therapy, 37*(2), 121-136. doi:10.1111/j.1752-0606.2011.00223.x
- Doherty, W. J., & Simmons, D. S. (1996). Clinical practice patterns of marriage and family therapists: A national survey of therapists and their clients. *Journal of Marital and Family Therapy, 22*(1), 9-25. doi:10.1111/j.1752-0606.1996.tb00183.x
- Dunn, H., Morrison, A. P., & Bentall, R. P. (2006). The relationship between patient suitability, therapeutic alliance, homework compliance and outcome in cognitive therapy for psychosis. *Clinical Psychology & Psychotherapy, 13*, 145-152.
- Elliott, R., Slatick, E., & Urman, M. (2001). Qualitative change process research on psychotherapy: Alternative strategies. *Psychologische Beitrage, 43*(3), 69-111.
- Fisch, R., Weakland, J. H., & Segal, L. (1991). *The tactics of change: Doing therapy briefly*. San Francisco: Jossey-Bass.

- Gelo, O. G., & Salvatore, S. (2016). A dynamic systems approach to psychotherapy: A meta-theoretical framework for explaining psychotherapy change processes. *Journal of Counseling Psychology, 63*(4), 379-395. doi:10.1037/cou0000150
- Gilbert, J. I. (1973, January). The Yerkes-Dodson law: An extension and expansion. *Dissertation Abstracts International, 33*, 3342.
- Gillespie, B., Davey, M. P., & Flemke, K. (2015). Intimate partners' perspectives on the relational effects of mindfulness-based stress reduction training: A qualitative research study. *Contemporary Family Therapy: An International Journal, 37*(4), 396-407. doi:10.1007/s10591-015-9350-x
- Gottman, J. M. (1999). *The marriage clinic: A scientifically-based marital therapy*. New York: W.W. Norton.
- Hanoch, Y., & Vitouch, O. (2004). When less is more: Information, emotional arousal and the ecological reframing of the Yerkes-Dodson law. *Theory & Psychology, 14*(4), 427-452. doi:10.1177/09593543040444918
- Hawrilenko, M., Fleming, C. E., Goldstein, A. S., & Cordova, J. V. (2016). Motivating action and maintaining change: The time-varying role of homework following a brief couples' intervention. *Journal of Marital and Family Therapy, 42*(3), 396-408. doi:10.1111/jmft.12142
- Johnson, L. N., Nelson, T. S., & Allgood, S. M. (1998). Noticing pretreatment change and therapy outcome: An initial study. *The American Journal of Family Therapy, 26*(2), 159–168. doi:10.1080/01926189808251095

- Johnson, L. N., Mennenga, K. D., Oka, M., Tambling, R. B., Anderson, S. R., & Yorgason, J. (2017). Daily events for clinical couples: Examining therapy interventions, positive events, arguments, and exercise in the beginning stage of therapy. *Family Process, 9*(1), 41–19. <http://doi.org/10.1111/famp.12301>
- Johnson, L. N., Selland, B., Mennenga, K. D., Oka, M., Tambling, R. B., Anderson, S. R., & Miller, R. (2017). Examining the link between exercise and marital arguments in clinical couples. *Couple and Family Psychology: Research and Practice, 6*(3), 226-234. doi:10.1037/cfp0000085
- Johnson, L. N., Selland, B., Mennenga, K. D., Oka, M., Tambling, R. B., Anderson, S. R., & Miller, R. (2018). Examining the link between exercise and marital arguments in clinical couples. *The American Journal of Family Therapy, 46*(1), 1-13. doi:10.1080/01926187.2018.1437574
- Kazantzis, N., & L'Abate, L. (2005). Theoretical foundations. In N. Kazantzis, & L. L'Abate (Eds.), *Using homework assignments in cognitive behavior therapy* (pp. 9-33). New York: Routledge.
- Kindsvatter, A., Osborn, C. J., Bubenzer, D., & Duba, J. D. (2010). Client perceptions of pretreatment change. *Journal of Counseling & Development, 88*(4), 449-456. doi:10.1002/j.1556-6678.2010.tb00045.x
- Klages, U. (2002). Irrationale Einstellungen und soziale Belastung bei Patienten in ambulanter Verhaltenstherapie: Verlauf, prognostische und mediierende Einflüsse auf den Behandlungserfolg. = Irrational attitudes and social stress in outpatient behavior therapy: Changes, prognostic and mediating influences. *Psychotherapie Psychosomatik Medizinische Psychologie, 52*(12), 500-510. doi:10.1055/s-2002-36009

- Lei, M., Beach, S. H., Simons, R. L., Barr, A. B., Cutrona, C. E., & Philibert, R. A. (2016). Stress, relationship satisfaction, and health among African American women: Genetic moderation of effects. *Journal of Family Psychology, 30*(2), 221-232. doi:10.1037/fam000014
- Lewandowski, G. W., Mattingly, B. A., & Pedreiro, A. (2014). Under pressure: The effects of stress on positive and negative relationship behaviors. *The Journal of Social Psychology, 154*(5), 463-473. doi:10.1080/00224545.2014.933162
- Mausbach, B. T., Moore, R., Roesch, S., Cardenas, V., & Patterson, T. L. (2010). The relationship between homework compliance and therapy outcomes: An updated meta-analysis. *Cognitive Therapy and Research, 34*(5), 429-438.
- Mcquaid, J. R. (1995, May). Marital life stress and the recurrence of depression. *Dissertation Abstracts International Section A, 55*, 3656.
- Ogden, P. (2009). Emotion, mindfulness, and movement: Expanding the regulatory boundaries of the window of affect tolerance. In D. Fosh, D. J. Siegel, M. F. Solomon, D. Fosh, D. J. Siegel, M. F. Solomon (Eds.), *The healing power of emotion: Affective neuroscience, development & clinical practice* (pp. 204-231). New York, NY, US: W W Norton & Co.
- Passmore, J., & Oades, L. G. (2015). Positive psychology techniques - Random acts of kindness and consistent acts of kindness and empathy. *The Coaching Psychologist, 11*(2), 90-92.
- Rees, C. S., McEvoy, P., & Nathan, P. R. (2005). Relationship between homework completion and outcome in cognitive behavior therapy. *Cognitive Behaviour Therapy, 34*(4), 242-247.
- Salsman, N. L. (2006). Interpersonal change as an outcome of Time-Limited Interpersonal Therapy. *Dissertation Abstracts International, 66*, 5103.

- Santos-Ruiz, A., Robles-Ortega, H., Pérez-García, M., & Peralta-Ramírez, M. I. (2017). Effects of the cognitive-behavioral therapy for stress management on executive function components. *The Spanish Journal of Psychology, 20*. doi:10.1017/sjp.2017.10
- Serido, J., Almeida, D. M., & Wethington, E. (2004). Chronic stressors and daily hassles: Unique and interactive relationships with psychological distress. *Journal of Health and Social Behavior, 45*(1), 17-33. doi:10.1177/002214650404500102
- Siegel, D.J. (1999). *The developing mind: Toward a neurobiology of interpersonal experience*. New York: Guilford Press.
- Siegel, D.J. (2012). *The developing mind, second edition: How relationships and the brain interact to shape who we are*. New York: Guilford Press.
- Stone, A. A., & Shiffman, S. (2002). Capturing momentary, self-report data: A proposal for reporting guidelines. *Annals of Behavioral Medicine, 24*(3), 236-243. doi:10.1207/s15324796abm2403\_09
- Teigen, K. H. (1994). Yerkes-Dodson: A law for all seasons. *Theory & Psychology, 4*(4), 525-547. doi:10.1177/0959354394044004
- Timmons, A. C., Arbel, R., & Margolin, G. (2016). Daily patterns of stress and conflict in couples: Associations with marital aggression and family-of-origin aggression. *Journal of Family Psychology, 31*(1), 93-104. doi:10.1037/fam0000227
- Totenhagen, C. J., Butler, E. A., Curran, M. A., & Serido, J. (2015). The calm after the storm: Relationship length as associated with couples daily variability. *Journal of Social and Personal Relationships, 33*(6), 768-791. doi:10.1177/0265407515597562