THE ASSOCIATION BETWEEN WRITING ABOUT MARITAL EXPERIENCES
AND INDIVIDUAL DISTRESS AND MARITAL SATISFACTION

by

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ABSTRACT

The Association Between Writing about Marital Experiences and Individual Distress and Marital Satisfaction

by

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This exploratory project studied the association between positive and negative writing assignments on marital satisfaction and individual distress levels. The sample consisted of 110 individuals (30 couples in the positive writing group, 25 in the negative writing group). Individual distress was measured with the OQ-45.2 and marital satisfaction was measured with the Revised Dyadic Adjustment Scale (RDAS). MANOVA was used to test differences between pre- and post-writing intervention scores on the OQ-45.2 and RDAS. When pairing time, gender, and group in the analysis, time was the only statistically significant factor for both measures. The change from time 1 to time 2 may be due to the writing assignment while gender and group assignment may not be factors that lead to positive change in marital satisfaction and the lowering of individual distress.

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Project Research Design
CHAPTER I
INTRODUCTION

Talking about stressful experiences has long been an important part of psychotherapy. The expression of feelings about stressful events is generally believed to play an important role in therapy (Esterling, Antoni, Fletcher, Margulies, & Schneiderman, 1994; Sloman & Pipitone, 1991). Specifically, emotional expression may advance cognitive changes, such as reappraisal of an event, which may subsequently lead to adaptive behavior. Recently, writing also has become an important part of therapy (Riordan, 1996). Writing has helped clients and their therapists understand traumatic experiences and stressful events that may not be verbally discussed with ease. Due to the lack of empirical research, Riordan (1996) reported that therapeutic writing needed more research and a more concentrated review.

In the medical field, research has broadened to include writing exercises that have been linked to symptom reduction (Smyth, Stone, Hurewitz, & Kaell, 1999). Smyth et al. examined the effects of writing about stressful experiences on symptom reduction in patients with asthma or rheumatoid arthritis. The study was the first of its kind to demonstrate that writing about stressful life experiences improved both physician ratings of disease severity and objective indices of disease severity in chronically ill patients.

From the research that has been conducted (Esterling et al., 1991; France, Cadieax, & Allen, 1995; Jordan & L’Abate, 1995; Smyth et al., 1999) in both the fields of medicine and psychotherapy, it appears that writing is becoming more widely used and accepted as an effective and practical addition to many treatment modalities, whether
physically or mentally related. To date, most of the research has focused on the use of writing to improve individual conditions and has not focused on couple conditions. The limited research on writing or journaling used in couple’s therapy has not explored the impact that the technique may have on marital satisfaction.

Theoretical Framework

Systems theory is the most useful theory for understanding the pretense for this research. Systems theory has emerged as an overall concept, encompassing both general systems theory and cybernetics and focusing on the relationship between elements rather than on the elements themselves (Goldenberg & Goldenberg, 1996). Cybernetics and general systems theory give direction to change that is not possible with linear thought. Human interactions are not easily described as cause and effect. There are multiple causes and multiple outcomes. Sameroff and Chandler (1975) made four crucial propositions of a transactional perspective. First, neither individual nor environment can be considered fixed, for each is constantly changing. Second, individual and environment not only interact with but alter one another in their transaction. Third, outcomes are determined not only by environment, individuals, and their interactions, but also by the history of their mutual transactions. Fourth, abnormal antecedents do not guarantee equally abnormal outcomes; outcome can be surprisingly normal when antecedent circumstances clearly are not.

A system is an entity with component parts that covary, with each unit constrained by or dependent on the state of the other units. All components interact so that each influences and in turn is influenced by other component parts, together producing a whole
that is greater than the sum of the interdependent parts. A good example of this was illustrated by Hanson (1995). The author related systems to the tale of Humpty Dumpty. Before Humpty fell off the wall, he was a system - a whole. After he fell off the wall, the sum of his parts was apparent, but the wholeness was gone. The entire system had fallen apart and would not be the same ever again. No system can be sufficiently envisioned or fully illustrated once it has been broken down into its component parts. It is maintained that no element within a system can ever be understood in seclusion since it never functions exclusively (Goldenberg & Goldenberg, 1996).

When dealing with systems, concepts like homeostasis and negative or positive feedback loops are commonly discussed. Homeostasis can be defined as the automatic tendency of a body to maintain balance or equilibrium. The process of homeostasis is not inert. A constantly fluctuating interaction is operating within any given system at any given time (Guttman, 1991). A good example of this is a tightrope walker that is constantly in motion making adjustments to maintain balance and vital symmetry.

Feedback loops are informational mechanisms that insert information about a system’s output back to its input in order to regulate the system’s functioning (Goldenberg & Goldenberg, 1996). A negative feedback loop maintains the status quo by minimizing change and a positive feedback loop leads to further change by increasing the initial deviation.

Individuals are systems within systems (Nichols & Schwartz, 1998). Individuals respond to outside forces, but each individual has personal characteristics that can influence change in the systems they are involved in by using initiation, imagination, abstract reasoning, creativity, memory, and desire.
A family represents a complex relationship system in which causality is circular and multidimensional. Family rules and subsystems help stabilize and regulate family functioning. Homeostasis is achieved by implementing the family rules that govern the system. Negative and positive feedback loops will either work to promote homeostasis or dislodge its hold on the family.

Hanson (1996) suggested that we begin to examine events rather than outcomes to facilitate systemic thinking and changing. Events become snapshots of an ongoing process. The tendency is to see outcomes as an endpoint. If this occurs we miss much of the pattern and process. Hanson (1996) also referred to the concepts of equifinality and multifinality. The two concepts are the basis of systemic thinking in that an action can have multiple potential sources and multiple potential outcomes dependent on the sources. Equifinality and multifinality express the idea that you cannot calculate effects based on information alone.

Therapeutic writing can be examined in two systemic ways. The curative benefit of writing has been shown by much of the research that has been conducted on the subject. Individuals may not be fully capable of verbally expressing their emotions and therapeutic writing can facilitate expression (Reichert, 1994). By using verbal discussion and writing assignments, a therapist may accelerate the process and facilitate emotional expression from more than one perspective, thus expanding a linear perspective to encompass a more systemic view (Leavitt & Pill, 1995). Also, by using therapeutic writing as an intervention, therapists can gain insight into the couple that they are working with. When a couple writes about their feelings, they have the ability to express emotions without being disturbed, they can take time to think about what they are feeling,
and they can freely express themselves without an immediate reaction from others. The ability to do these things may not be present in couples who have a difficult time expressing themselves without fighting or arguing. Expressive writing can be used when a couple’s patterns of communication have become conflictual or imbued with underlying meanings that need exploration (Riordan, 2000). Therapeutic writing can be used to diffuse resistance, because it is more difficult to disagree with yourself than someone else. Written words are more enduring than spoken words and can serve as a reminder of feelings (Leavitt & Pill).

The use of specific writing assignments in couple therapy by the therapist can also provide specific results within the system. For example, the use of a writing assignment might increase the likelihood of positive interaction within the couple, as they are able to express positive feelings through writing. A negative writing assignment (writing about negative emotions, feelings, or events) might produce a cathartic response in the couple due to the cleansing effect of expressing negative feelings (Henke, 1998; Leavitt & Pill, 1995; Reichert, 1994). No research has been conducted that specifically studies the effectiveness of writing interventions on marital satisfaction.

Purpose of Study

Many couples attempt to highlight exchanges of information in ways that reduce uncertainty and doubt about present and future behavior (Rudes, 1992). The writing assignment may help generate a shift toward confusion which will facilitate change in the system. The extricating of fixed or linear reactions is expected to be a result of the writing exercises. The writing assignment may alter the understanding of the couple’s
perceptions and expectations of themselves, each other, and their relationship. The writing assignment will create space for different points of view and may change a conglomeration of fixed patterns of interaction (Rudes).

There is a need for research in the area of writing and marital satisfaction. There are many personal, interpersonal, and clinical implications that could benefit married couples. Studying this would promote new ideas and innovative techniques in cutting both cost and length of therapy.

The present study focused attention on the effects of writing on marital satisfaction and individual distress. These two variables have not been paired together in a systematic empirical investigation to this point. The independent variable is writing about positive marital events, negative marital events, or neutral impressions of marriage. The dependent variables are marital satisfaction and individual distress.

With the given variables, and understanding positive and negative feedback loops, it can be hypothesized that happily/unhappily married couples can take one of two paths when given the writing assignment. Based upon their marital history and depending on their marital satisfaction, they may diverge into a positive or negative feedback loop, thus producing change or maintaining the status quo.
CHAPTER II
LITERATURE REVIEW

This chapter reviews the literature that shows the relationship between writing and improvement of some situation (i.e., improvement of physical health and emotional expression). There is also a vast amount of literature that demonstrates the therapeutic value of writing as a form of expression. Existing research has shown that writing can be an effective intervention to stimulate emotional locution and improve a client’s condition on some factor. As a result of these findings, a case is made that the use of journaling with married couples may be effective in improving marital satisfaction and individual distress. At the conclusion of this chapter, research hypotheses are presented.

Benefits of Writing

Abraham Maslow has suggested that if a person’s most basic needs are satisfied (i.e., food, sex, and security), that person will exhibit a strong drive toward self-expression (Crain, 1992). One reason that writing about life circumstances may be physically healthy is that writing itself is a fundamental form of self-expression.

The archetype theory that influenced initial studies on writing was based on the supposition that not talking about important psychological phenomena is a form of inhibition (Pennebaker, 1997). The components to this theory are (a) not talking about important psychological phenomena is a form of inhibition, (b) inhibition increases stress, (c) increased stress leads to health problems, (d) disclosure reduces inhibition, (e) reduced inhibition reduces stress, and (f) reduced stress leads to improved health outcomes. Just
as suppressing thoughts, feelings, or behaviors fused to an emotional upheaval is stressful, letting go and talking about these experiences should, in theory, reduce the stress of inhibition. Past research (Pennebaker, 1997) has suggested that writing about trauma does more than allow for the reduction of inhibitory processes. The health benefits of writing or talking about life events are twofold. People reach an understanding of the events and, once this is accomplished, they no longer need to inhibit their talking any further (Bootzin, 1997).

Pennebaker (1990) suggested that we are often so intent on attaching meaning to an event that we become irrational. We naturally search for meaning and completion to events that we know at some level do not have meaning and can never be resolved. One reason that writing can be so beneficial is that it is a powerful tool to discover meaning. Writing promotes self-understanding in ways that verbal communication cannot. Writing forces some degree of structure and organization to thought and it may help individuals organize and clarify their thoughts and feelings on issues that are important to them. Individuals are forced to slow down their thinking process. Becoming detached or the ability to be objective about a situation allows a person to consider the complex causes of the event and writing it down may result in not having to think about the topic any longer.

Many researchers have demonstrated that women have better verbal skills than their male counterparts (Biller, 1973; Boone & Lu, 2000; Dorans & Livingston, 1987; Gallager et al., 2000; Hakstian, Woolsey, & Schroeder, 1987; Wilkie & Eisdorfer, 1977) and are more able to clearly verbalize thoughts and feelings. Assuming this is true for writing, the unit of analysis should be on the individual, not on the couple as a whole.
Writing and Medical Research

Several researchers (Esterling et al., 1994; France et al., 1995; Jordan & L’Abate, 1995; Smyth et al., 1999) have studied the effects of writing on various topics, most of which focus on symptom reduction of a physical problem or disease. Much of the evidence supporting writing and symptom reduction has been done with physical symptoms and not mental symptoms. To date, much of the psychotherapy research has been done to show client improvement, but does not set up research situations with an experimental and control group, instead focusing on case studies.

Writing has been demonstrated to be effective in facilitating change in symptom reduction of patients with asthma and rheumatoid arthritis (Smyth et al., 1999). Patients were assigned to write either about the most stressful event of their lives ($n = 71$; 39 asthma, 32 rheumatoid arthritis) or about emotionally neutral topics ($n = 41$; 22 asthma, 19 rheumatoid arthritis). Interestingly, the patients were not instructed to write specifically about their symptoms or the problems caused by their medical condition. The research participants were asked to write for 20 minutes on three consecutive days after completing baseline assessments. The writing took place in private rooms to ensure confidentiality. The participants were given a writing tablet with instructions. Expectancy deviations were decreased by informing both groups that the researchers were interested in their experience of stress. The participants were asked to write continuously for 10 minutes without regard to spelling, grammar, or stylistic concerns. The participants could write about the same topic for three sessions or could change topics if desired.
Asthma patients in an experimental group showed improvements in lung functioning, whereas control group patients showed no change. Rheumatoid arthritis patients in the experimental group showed improvements in overall disease activity, whereas control group patients showed no change. When all patients who participated in this study were combined, 33 of 70 (47%) experimental patients showed clinically relevant improvement, whereas only 9 of 37 (24%) control patients showed improvement. The gains in the experimental group were beyond those attributable to the standard medical care that all participants were receiving. Patients with mild to moderately severe asthma or rheumatoid arthritis who wrote about stressful life experiences had clinically relevant changes in health status at four months compared with those in the control group.

Esterling et al. (1994) conducted research that demonstrated a strong correlation between emotional disclosure through writing and reduction in Epstein-Barr Virus (EBV) antibody titers (suggesting better cellular immune control over the latent virus). Fifty-seven subjects completed the assessment and protocol. All subjects completed the Millon Behavioral Health Inventory (MBHI; Millon, Green, & Meagher, 1982), which assesses individual differences in interpersonal coping styles.

Subjects were randomly assigned to one of the following conditions: written disclosure of stressful events (journaling), verbal disclosure (speaking into a tape recorder) of stressful events, or a trivial writing condition. In each of the first two conditions, subjects were asked to recall and focus on a stressful event that had happened to them and that they had not disclosed to many people.

As a result of this research, it was found that the emotional expression and interpersonal coping style evidenced by healthy people dealing with stressful traumatic
experiences were related to the EBV antibody titers. It was also determined that subjects who refrained from disclosing emotional material on a writing task had elevated EBV antibody titers. They found that subjects who revealed a repressive interpersonal style according to personality test scores had higher EBV antibody titers than those displaying more emotionally expressive interpersonal styles.

Research suggests that writing can play a role in symptom reduction for physical ailments. The research conducted to date has a short intervention period where study participants write freely about stressful or neutral subjects, followed by a post test. There are however, a limited number of studies that research this topic, but the findings suggest more research be conducted.

Therapeutic Writing

Writing assignments, or programmed writing (PW; Jordan & L’Abate, 1995; L’Abate & Platzman, 1991), can be used in therapeutic and preventive approaches with individuals, couples, and families. PW consists of intervening by relying on self-paced, self-administered writing assignments. Typically in psychotherapy, when PW is used, it is paired with face-to-face contact with a therapist. Programmed writing is used in accord with conventional verbal therapy. The writing assignments are used as a springboard for further dialogue and exploration in therapy. The written medium has the advantage over the spoken medium of being explicit and specific-qualities that can become confused, no matter how clearly one may speak (L’Abate & Platzman).

Phillips and Wiener (1966) were among the first to use PW as a therapeutic tool. Application tools for writing assignments were presented and are paraphrased here: (1)
Writing should be done at specific times and for a specific length of time. (2) The client should write freely on the subject and should not be concerned with spelling or punctuation. (3) If writing is difficult because of educational level or other factors, the client should be encouraged to speak into a tape recorder. (4) An explanation of the exercise by the therapist will be helpful to promote focus and attention. (5) The written notes can be used during session or in any way the therapist and client see fit.

Riordan (1996) echoed the work done by Phillips and Wiener (1966) in the description and discussion of scriptotherapy. The term scriptotherapy describes “the various forms of writing used for therapeutic purposes . . . [it can also be defined as] the deliberate use of writing designed to enhance therapeutic outcomes” (p. 263). The author stated guidelines for using scriptotherapy. (1) Time and place: Encourage writing at the same time of day. Write for an assigned length of time (between 15 and 60 minutes). Conduct writing in a private, uninterrupted location. (2) Content decisions: Assign a specific topic or theme to writing. Encourage client to write freely about what comes to mind. Do not worry about grammar, but request legibility. (3) Feedback: Plan a consistent method of feedback on writing. (4) Other logistics: Introduce scriptotherapy at the onset of counseling. Prepare clients to handle sensitive issues that can arise. Be selective about which clients can benefit from writing.

There are many practical implications and uses of PW exercises for clients. Programmed writing can augment both cathartic and cognitive skills. It can facilitate sharing and expression of feelings. When used in conjunction with traditional psychotherapy, an increase in couple communication is expected, help in dealing with past trauma is amplified, and intensification of psychotherapy is commonly experienced,
thus producing a more cost-effective therapeutic intervention (Jordan & L’Abate, 1995).

There are also practical implications and uses of PW for psychotherapists. Some of the implications are that the responsibility to complete the writing assignments is on the client and not the therapist, that the client is extremely active in the process of change, that a reduction in the frequency of sessions usually occurs, and that assignments can be made in place of a face-to-face session, thus increasing the number of clients that can be seen per unit of the therapist’s time. The last benefit would allow the therapist to visit with clients who could not otherwise be seen due to economic limitations (Jordan & L’Abate, 1995).

Writing assignments can be very influential in altering relationships. Jordan and L’Abate (1995) gave several case study examples that demonstrate client reactions to PW. Some of those are:

Putting everything first on paper and then later talking about it helps a lot and makes us more equal . . . our whole relationship has changed . . . and now I have on-the-job training and insight by working on the homework assignments and talking with you about it. (pp. 229-230)

It should be noted, however, that use of PW may not be applicable to all therapists or to all models of therapy. It also will not be the best approach to use with all clients. L’Abate and Platzman (1991, pp. 102-103) stated “There is virtually no topic that cannot be dealt with in writing that is not already dealt with in speaking.” In later writings however, Jordan and L’Abate (1995) suggested that not all disorders can be dealt with in writing assignments. An example would be a paranoid personality type that is nervous about committing anything to paper for fear that the therapist will use it against them.

Pennebaker and Beall (1986) conducted a preliminary investigation to learn if
writing about traumatic events would influence long-term measures of health as well as short-term indicators of physiological arousal and reports of negative moods. Forty-six undergraduates wrote about personally traumatic life events. Participants were randomly assigned to one of four groups. The control group \((n = 12)\) was assigned to write about trivial events; those in the trauma emotion group \((n = 12)\) wrote their feelings about a traumatic event; another group wrote about the facts surrounding traumatic events \((n = 11)\); and the last group wrote about the facts surrounding a traumatic event and the traumatic event itself \((n = 11)\), on four consecutive days. Heart rate, blood pressure, and self-report measures were collected during each session. Following each session, subjects rated their own essay as to the degree to which (a) it was personal, (b) it revealed their emotions, and (c) they had shared it with other people. Health center records were also collected from 4 to 6 months following the experiment in order to determine long-term health consequences of the study.

In this study, subjects did not receive social support or social comparison information. Writing about earlier traumatic experiences was associated with both short-term increases in physiological arousal and long-term decreases in health problems. These effects were most pronounced among subjects who wrote about both the trauma and their emotions associated with the trauma.

Writing has been traditionally used in a therapeutic context as a form of expressing thoughts and emotions. Much of the writing used as part of therapy is structured in time, topic, and method. This suggests that some problems presented in therapy may not warrant the use of a writing exercise. When appropriate, the use of writing exercises may shorten the number of sessions conducted face-to-face (Jordan &
L’Abate, 1995). In addition, individuals who have used writing find it beneficial to their mental well-being.

Use of Writing to Improve Marital Satisfaction

Positive Writing

Gottman (1994, 1999) suggested that creating and maintaining positive sentiment for one’s spouse is a crucial element in sustaining marital satisfaction. Love maps measure the amount of cognitive room partners have for the relationship. This includes knowing one’s partner’s psychological world, and being known and feeling known as well. Gottman also suggested that the amount and accessibility of respect and affection partners feel for, and are willing to express to, one another is an important factor in determining the satisfaction level in a marriage. Gottman went on to suggest that couples are more loving and happy when they are able to turn toward each other rather than away. Creating and maintaining positive sentiment for one another is a common theme among couples satisfied with their marital relationship.

Pennebaker (1990) complemented Gottman’s research, and suggests that partners in a marriage gradually become repositories of each other’s thoughts and memories, thus creating cognitive space for the other. Leavitt and Pill (1995) reported that writing can be a intricate instrument for expressing intimate emotions and activating personal development. Pennebaker (1997) found that the more individuals used positive emotion words, the better their subsequent health. L’Abate (1999) used positive writing to help couples become more intimate. The aforementioned research and commentary lay the groundwork for developing this research project to include couples writing about positive
aspects of their marriage.

Happily married couples tend to have cognitive space reserved for their partner. They are cognizant of the experiences and emotions that their partner encounters. Gottman (1994, 1999) suggested that partners that reflect on their relationship with fondness and admiration have a much higher rate of being happily married than do partners that do not reflect fondness and admiration toward their partner. Thus, writing about positive marital experience may play a role in helping couples reflect positive thoughts and feelings toward each other.

**Negative Writing**

A natural way of understanding trauma is talking with others. Many upsetting events cannot easily be discussed. Investigators have argued that writing about an event also may serve a cathartic function and that venting has some therapeutic value (Lange, 1996; Pennebaker & Beall, 1986). Expressing negative emotions on paper may alleviate negative feelings and the mere disclosing of the person’s problem or dilemma may have tremendous therapeutic value in and of itself (Pennebaker, 1997). Cartwright (1996) and Van Der Hart, Boon, and Everdingen (1990) have suggested that writing about traumatic events can be used to help clients express emotions that they have struggled to express verbally. The aforementioned research and commentary builds a case for developing this research project to include couples writing about negative aspects of their marriage.

Writing about negative thoughts or feelings may play a role in emotional expression that exceeds the limits of verbal articulation. A person may not feel comfortable expressing negative emotion to another individual and writing may allow this
person to disclose their feelings in an environment over which they have control. Thus, writing may play a role in allowing marriage partners the opportunity to release negative feelings in a secure milieu.

Research Questions

No research has been conducted on the outcomes of using writing to improve individual distress and marital satisfaction. The goal of therapeutic writing with marital couples was to alter fixed patterns of emotional expression (or non-expression) and facilitate improvement in individual distress and marital satisfaction levels. The intention of this research was to find out if therapeutic writing leads to improvement in individual distress and marital satisfaction.

There are three specific research questions for this study:

1. Will there be a change in individual distress and marital satisfaction when comparing pre- and posttest data of the positive writing intervention for husbands and wives?

2. Will there be a change in individual distress and marital satisfaction when comparing pre- and posttest data from the negative writing intervention for husbands and wives?

3. Will there be a change in individual distress and marital satisfaction when comparing pre- and posttest data from the neutral writing intervention for husbands and wives?
CHAPTER III

METHODOLOGY

The methodology chapter considers the design, sample, measures, and research procedures that were used in this study. This information will enable the reader to more clearly understand the study.

Design

A quasi-experimental design was used to examine the relationship between the use of positive, negative, and neutral writing assignments with married couples and their individual distress and marital satisfaction. This research design is considered an interrupted time-series quasi-experiment according to the criteria set forth by Dooley (1995). A quasi-experiment must have two or more differently treated groups and random assignment may be made within these groups. Figure 1 was designed to visually demonstrate the research design for this project.

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\begin{align*}
R: & \quad O \quad X_1 \quad O \\
R: & \quad O \quad X_2 \quad O \\
R: & \quad O \quad X_3 \quad O
\end{align*}
\]

Figure 1. Project Research Design. R equals random assignment to treatment groups. O equals measurement. X 1 (positive writing), X 2 (negative writing), and X 3 (neutral writing or comparison group) demonstrate the interventions.
Reverse causation is a threat to correlational designs because it is difficult to determine if the presumed cause came before or after the presumed effect (Dooley, 1995). Because the present study is a quasi-experimental design, reverse causation is reduced by the design format of the presentation of variables. The causal direction was established with pre- and posttesting as well.

Time threats consist of change observed in the subjects over time that are not attributable to the independent variable. History, reactivity, maturation, and instrumentation are four time threats that must be considered. According to Dooley (1995) history refers to the threat that some event unrelated to the experimental intervention causes the observed change. Reactivity refers to the extent to which a measure causes a change in the behavior of the subject. By using self report measures, reactivity may not be minimized. Reactivity has the potential to be a time threat. Maturation refers to the internal developmental processes that cause observed change in the subject. The samples most likely will not mature at a fast rate (marital satisfaction does not usually change in a three day period), thus minimizing maturation as a threat. Instrumentation refers to observed changes in the dependent variable that originate from the way measures are collected. The measures are standardized and thus, the instrumentation threat was minimized.

Group threats appear when there are rival explanations for occurrences between groups and are minimized by random assignment. Each of the subjects had an equal chance of being assigned to each of the three groups. Group threats involve regression toward the mean, selection, and selection-by-time interactions (Dooley, 1995). Regression to the mean is a problem that may arise when unreliable measures are used or
if random assignment is not used. It is commonly seen when the same measure is applied more than one time. The measures that were selected for use in this study have high reliability and the study employs random assignment, thus reducing regression to the mean. Selection refers to differences seen between groups in the end of the study that existed prior to the intervention, usually because of the way the subjects were assigned to groups. Pretest equivalence was checked by using the same selection criteria for all subjects minimized selection threats and by performing a $t$-test analysis comparing the males and females with their same gender by group. The $t$-test analysis is discussed in more detail in the procedures section. There was not a significant correlation between the groups by gender, providing support of group pretest equivalence. Selection-by-time refers to a threat in which subjects with different likelihoods of experiencing time-related changes are placed into different groups. Checking pretest equivalence minimized this type of selection threat also. All of these between group threats were minimized by using random assignment.

Sample

The subjects were selected based upon convenience and marital status. There are advantages and disadvantages to using a convenience sample. Dooley (1995) described convenience sampling as a nonprobability sample due to the unequal chance of selection. Subjects also typically choose themselves for the sample. Convenience samples are not representative of a greater population. A convenience sample was chosen because generalizability was not the goal of this study.

Many of the subjects were recruited by students from undergraduate classes of
participating professors and instructors. The investigator spoke to members of the undergraduate classes and class members enlisted parents, siblings, or friends who met the marriage criteria (must be married for at least 5 years). The researcher also contacted individuals who met the marriage criteria to participate or to recruit others to participate in the study. Two-hundred and thirty-one packets were sent to couples who had committed to participate in the research. Of these 231, 62 couples completed the entire research project. Each group had 77 couples randomly assigned to it. There was an overall response rate of 27%. Each individual filled out the initial paperwork and questionnaires, completed the writing intervention, and completed the follow-up questionnaires. Of the 62 couples who completed the project, 30 had been assigned to the positive writing group, 25 had been assigned to the negative writing group, and 7 had been assigned to the neutral writing group. The positive, negative, and neutral groups had a 39%, 32%, and 9% response rate, respectively. Demographic data were gathered from the participants and a summary of the information can be found in Tables 1 and 2. In general, the participants were Caucasian, in their first marriage, educated, Mormon, worked full- or part-time, and most did not write in a journal on a regular basis.
Table 1

Sample Description of Couples Participating in Writing Study \((n = 124)\)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Husbands</th>
<th></th>
<th>Wives</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>Age</td>
<td>37.17</td>
<td>10.93</td>
<td>34.76</td>
<td>10.55</td>
</tr>
<tr>
<td>Years married</td>
<td>11.97</td>
<td>9.83</td>
<td>11.97</td>
<td>9.83</td>
</tr>
<tr>
<td>Times married</td>
<td>1.31</td>
<td>0.78</td>
<td>1.18</td>
<td>0.39</td>
</tr>
<tr>
<td>Number of children</td>
<td>2.45</td>
<td>1.95</td>
<td>2.45</td>
<td>1.95</td>
</tr>
<tr>
<td>Years of education</td>
<td>15.05</td>
<td>2.84</td>
<td>14.65</td>
<td>2.25</td>
</tr>
<tr>
<td>Yearly household income</td>
<td>62*</td>
<td>27*</td>
<td>62*</td>
<td>27*</td>
</tr>
</tbody>
</table>

* Yearly income is expressed in thousands.

Measures

Different measures were used (see Appendix B) to assess individual distress and marital satisfaction. An affect coding system (Gottman, 1996) was used to code the writing of the research participants. The specific descriptions follow.

The Outcome Questionnaire (OQ™ -45.2; Lambert, 1983) was used to assess individual distress that may have been associated with marital satisfaction. The questionnaire consists of 45 items, each with a 5 point Likert type response format. The questionnaire was designed to measure client progress in therapy. The responses to the questions are answered on a continuum with five possible choices ranging from
Table 2

Religious and Ethnicity Data for Participants

<table>
<thead>
<tr>
<th></th>
<th>Husbands</th>
<th></th>
<th>Wives</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Religious affiliation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mormon</td>
<td>49</td>
<td>79.00</td>
<td>50</td>
<td>80.60</td>
</tr>
<tr>
<td>Catholic</td>
<td>3</td>
<td>4.80</td>
<td>4</td>
<td>6.50</td>
</tr>
<tr>
<td>Protestant</td>
<td>3</td>
<td>4.80</td>
<td>3</td>
<td>4.80</td>
</tr>
<tr>
<td>None</td>
<td>7</td>
<td>11.30</td>
<td>5</td>
<td>8.10</td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caucasian</td>
<td>60</td>
<td>96.80</td>
<td>61</td>
<td>98.40</td>
</tr>
<tr>
<td>Latino</td>
<td>1</td>
<td>1.60</td>
<td>1</td>
<td>1.60</td>
</tr>
<tr>
<td>Asian</td>
<td>1</td>
<td>1.60</td>
<td>0</td>
<td>0.00</td>
</tr>
</tbody>
</table>

“never” to “almost always.” A high score on the measure represents higher levels of individual distress. Lambert (1983) suggested that three aspects of the subject’s life are monitored with this measure: (1) subjective discomfort (intrapsychic functioning), which contains key symptoms for anxiety and depression, (2) interpersonal relationships, which contains symptoms to identify distress in close relationships, and (3) social role performance, which contains key symptoms to identify distress in social support systems. The assessment attempts to measure the subjective experience of a person, as well as the way they function in the world. The subjective discomfort subscale consists of 25
questions and assesses symptoms of depression, anxiety, and substance abuse. The interpersonal relationship subscale uses 11 questions to determine distress in marriage and family relations. Social role distress is a nine-item subscale used to determine problems related to work (or school), friends, and society. Each subscale is scored separately and the three subscale scores are added together for a total score.

OQ symptoms that often accompany marital distress include depression, anxiety, interpersonal stress, and decreased social support. Using the OQ adds a broader measure of an individual’s satisfaction or distress with their relationships. By monitoring these aspects, it is possible to describe individual influences that affect marital satisfaction.

The American Professional Credentialing Services, LLC (1996) determined reliability of the measure using three samples. First, a sample of 157 students from a large western university was studied. Second, a sample of 56 students from a different university was primarily used as normative data to reflect stability of the OQ over time when compared with clinical subjects undergoing treatment. Lastly, internal consistency was calculated on a subset of 298 patients from a Employee Assistance Program (EAP) sample. The measure was administered each week for a ten week period. The OQ total test-retest Pearson Product Coefficient for the first set of students was $r = .84$. The coefficient for the second set of students was $r = .93$ and the internal consistency Cronbach Alpha for the patient sample was $r = .93$.

The American Professional Credentialing Services, LLC (1996) conducted a comparative analysis on the OQ - 45.2 with other stress and depression measures. Symptoms distress was compared with the Zung Self Rating Scale (ZSRS; Zung, 1965) and was correlated at $r = .88$ for the individual domain score and $r = .88$ for the total OQ.
Interpersonal relationships was compared with the Inventory of Interpersonal Problems (IIP) (Horowitz et al., 1991) and was correlated at $r = .62$ for the individual domain scores and $r = .53$ for the total OQ. Social role was compared with the Social Adjustment Scale (SAS) (Weissman & Bothwell, 1976) and was correlated at $r = .44$ for the individual domain scores and $r = .65$ for the total OQ. Together, these analyses provide evidence of construct validity.

The Revised Dyadic Adjustment Scale (RDAS; Busby, Christensen, Crane, & Larson, 1995) was used to assess marital satisfaction of the couples. It is a reliable, valid, and short (14-item) instrument with seven first-order concepts (decision making, values, affection, stability, conflict, activities, discussion) and three second order concepts (dyadic consensus, dyadic satisfaction, dyadic cohesion).

The researchers summarized the RDAS Cronbach’s alpha reliability coefficients for each of the subscales and total RDAS. The dyadic consensus subscale was .81. The dyadic satisfaction subscale was .85. The dyadic cohesion subscale was .80. The total RDAS was .90.

To evaluate the validity of the RDAS, factor analyses were conducted with the LISREL program (Joreskog & Sorbom, 1989). Using the LISREL program, a stacked model (estimated both models simultaneously) with nondistressed and distressed samples was executed. The chi-square for the stacked model was 31.21 ($22, p = .092$) and the goodness of fit index (GFI) was .97. These results provide evidence that the factor structure of the RDAS was the same for the nondistressed and distressed samples (Busby, et al., 1995).

Construct validity was also established when the RDAS was compared with the
Marital Adjustment Test (MAT; Locke & Wallace, 1959). The correlation coefficient between the RDAS and the MAT was $r = .68 \ (p < .01)$ and the correlation between the DAS and the MAT was $r = .66 \ (p < .01)$. The correlation coefficient between the Dyadic Adjustment Scale (DAS; Spanier, 1976) and the RDAS was $r = .97 \ (p < .01)$.

Busby et al. (1995) hypothesized “that the RDAS would be an improvement over the DAS if it was as successful as the DAS at discriminating between distressed and nondistressed samples” (p. 302). The discriminant analyses comparing both measures illustrated that the measures were equal in their ability to classify cases as either nondistressed or distressed. Both the RDAS and DAS correctly classified 81% of the cases, even though the RDAS had fewer items than its predecessor.

The Specific Affect Coding System (SPAFF; Gottman, 1996) was used to code the written journals as positive, negative, or neutral in content. The SPAFF was developed to code emotions of couples in therapy. Two versions of the SPAFF have been created. The version with 10 specific affects was used for this study. Although the SPAFF is mainly used to code live or taped interaction, it can also be used to code written responses (Gottman, 1996). The Rapid Couples Interaction Scoring System (RCISS; Gottman, 1996) was the predecessor the the SPAFF and all of the spoken data was transcribed and the affective content of the transcription was coded. Gottman (1996) has given several rules for coding affect. (1) A positive and negative code cannot be coded at the same time, (2) negative affect takes precedence over positive affect, (3) short one-liners are coded as neutral unless the affect is extremely obvious, (4) neutral is baseline and it happens when other things do not, and (5) if one is not sure or has a question about a code, then code it neutral.
There are 10 codes that were used to determine the amount of positive, negative, or neutral affect. They are neutral, humor, affection or caring, interest or curiosity, joy or excitement, anger, disgust or scorn, whining, sadness, and fear.

The neutral affect includes all information that is not emotional in tone. It was recognized as being nonemotional in content. It includes nonemotive general statements, and statements of fact.

Positive affect was coded when indications of humor, affection, caring, interest, or curiosity are expressed in the sentence. Humor can be identified as a relaxed good-natured expression of intimacy. The positive expressions of humor are not sarcastic or mocking, but contain an underlying tone of affection. The sentence may contain a joke or pun, recognition of absurdity, or “we against others” talk. Affection or caring can be identified by a direct expression of affection. This expression will be evident by a direct statement, a concerned question or statement, a compliment or general supportiveness. The sentence may contain agreement, compromise, a compliment, empathy, sympathy, support for partner, or validation. Interest or curiosity will be coded when an active interest or curiosity in the other person is indicated. All elements of the category of joy will be characterized by sentences containing anticipation, surprise, excitement, exaggerated words, and enjoyment.

Negative affect was coded when anger, disgust or scorn, whining, sadness, or fear are expressed in the sentence. Anger is fairly wide in scope, but its elements have in common a tendency toward syllabic phrases. The sentence may include accusations, offensive or abrasive language, or angry terms. The negative expression of disgust or scorn may include words that convey repulsion, derision, disdain, sarcasm, exasperation,
mockery, put down, or incompetence. Whining is not really an emotion, but can be expressed in a sentence as a potential index of a subordinate role in a dominance structure. It may be expressed as a demand, a complaint, a direct expression of feeling like an innocent victim, indignation, self-righteousness, defensiveness, or exclusionary words like always or never. Sadness can be identified by statements of hurt, resignation, self put down, disparagement or passivity. Fear can be identified by discussion of tension, stress, or worry.

Reliability of the SPAFF was established through measuring the level of observer agreement. Gottman (1996) found that interobserver reliability was high with kappas that ranged from .75 to .95, showing high levels of agreement. Gottman also suggests that the percent agreement of coders ought to stay at or above 75%. Gottman and Krokoff (1989) found that interobserver reliability was moderate to high for the SPAFF, with the overall kappa .74.

The SPAFF was developed from the RCISs and was designed to account for affect. For this type of coding, there are few formal types of validity. The measure has been widely used in the empirical literature and has both face and content validity (Gottman, 1996; Gottman & Krokoff, 1989).

Procedure

Undergraduate professors and instructors were recruited to find those that would allow the investigator to visit with their class to gather research participants. The researchers also actively recruited individuals outside of Utah State University to participate and/or recruit other couples who fit the criteria to participate. Class members
found married couples willing to participate in the experiment who were married for at least five years. Five years was chosen as an length of marriage restriction due to two important factors. Strong and DeVault (1995) suggested that married couples have an increased level of marital satisfaction for at least the first two years of marriage. This is similar to what most individuals call the “honeymoon phase.” In addition, Visher and Visher (1996) reported that it takes at least five years for a remarriage to stabilize and the length of marriage restriction will eliminate the need to separate out married from remarried couples. The length of marriage restriction was established so as to eliminate inherent bias toward higher levels of marital satisfaction found in newlyweds and more fluctuating levels of satisfaction found in remarried couples.

The students were encouraged to recruit their parents or older siblings. Family members were more likely to meet the year restriction and they also were more likely to participate in the study than student’s friends or acquaintances.

The researchers were not actively involved with the subjects in this study, which reduced experimenter bias. The experimenters only had contact by mail, e-mail, or by telephone, as clarification was needed by the participants.

The participant couples were randomly assigned to one of three groups. The groups were labeled as positive, negative, and neutral. The positive group was assigned to write on three consecutive days about positive marital interaction and experiences. The negative group was assigned to write on three consecutive days about negative marital interaction and experiences. The negative group was also instructed that this type of writing may positively impact their marital relationship due to the cathartic nature of expressing feelings. An element of risk that was associated with this study was that the
participating subjects may have experienced some emotional distress as they were writing, but a marriage and family therapy student was available for consultation and a therapy referral was made if necessary (it was not required). The neutral group was the comparison group and subjects were instructed to write about their general impressions of marriage on three consecutive days.

Once the subjects were recruited and their names and addresses were sent to the researcher, the subjects were mailed a packet containing measures and writing instructions (see Appendix A). The information in the packet explained the research being conducted, the informed consent, and confidentiality issues. By signing the informed consent, the participants made the decision to be involved in the study, knowing that they could withdraw at any point during the study. The research was approved by the Institutional Review Board for human subjects research (see Appendix C). The participants filled out the measures when they signed the informed consent (before the writing intervention). The instructions included encouragement to write freely about what came to mind. They were instructed to write continuously without regard for spelling or stylistic concerns. The subjects were also given contact information for the experimenter if they encountered any questions or concerns about the study as they progressed.

Following the completion of the writing assignments, participants used a prepaid envelope to send the measures and journal entries back to the researcher. A one month follow up was conducted using the same measures. One month was chosen because of the lack of research on the effects of writing over time. There is indication that writing has immediate benefits (Bootzin, 1997; Jordan & L'Abate, 1995; L'Abate & Platzman,
1991), but the effects have not been examined extensively over time. One month was chosen to see if there are long-term benefits, as follow-up studies can assess for longer term effects.

The journals were coded on a sentence by sentence basis. Each sentence was read and labeled positive, negative, or neutral. The dominant affect of the sentence was coded and the coders divided the group specific (positive, negative, neutral) total by the total number of sentences, excluding neutral sentences. The journal entries were given a total percent for each day of writing. To illustrate the coding process, a participant writing in the positive group mails in his journal entry. The entry contains 90 positive sentences and 10 negative sentences. The coder would then divide the number of positive sentences (90) by the total (100) and would assign .90 or 90% as the value to the entry.

Two upper-division undergraduate students majoring in Family and Human Development at Utah State University were recruited and trained to work as coders for this project. The coders were trained to code the positive, negative, and neutral, statements in the written responses according to the direction of the SPAFF instruction booklet (Gottman, 1996). The coders were blind to the purpose of the study and interobserver agreement was established between them. The coders were instructed about confidentiality issues regarding the journals they coded.

Cohen’s kappa statistic (Dooley, 1995) was used to determine interobserver agreement. It is one of the most conservative and appropriate ways to look at interobserver agreement. Cohen’s kappa is designed to correct for chance agreement, which percent agreement cannot do (Bakeman & Gottman, 1979). One advantage that kappa has over percent agreement is that it documents point-by-point agreement
(Bakeman & Gottman). Fleiss (1981) categorized kappas of .40 - .60 as fair, .60 - .75 as good, and over .75 as excellent. These benefits of the kappa statistic make it the most stringent and acceptable interobserver agreement statistic (Bakeman & Gottman).

Cohen’s kappa was calculated and determined to be .81 for interobserver agreement. The SPAFF scores for the coded journals averaged 97% for the positive writing group. The scores for the negative group averaged 85%. The portion of writing that was not about negative events mostly centered on the participant writing about positive marital events with a statement such as “we have had a difficult time dealing with finances,” followed by “but we have worked through it and I am satisfied with the result.” The scores for the neutral group averaged 62% positive. The participants in that group were assigned to write about their general impressions of marriage and many of them wrote about positive events or emotions. A few discussed negative events or emotions, but the majority discussed pleasant experiences.

Overall, the women produced a larger volume of written responses than the men. They wrote more sentences per day and produced a larger set of journal entries than their counterparts. The positive or negative value of the entry was similar between the gender groups and there were no significant differences between writing group assignment and journal response other than the differences in male and female responses.

The written journals or transcripts were kept in a locked cabinet in the Family Life Center and were made available only to the trained coders. The names of the participants were not on any material accessible to the coders. The secretary had the names of the coders and checked out the transcripts so that they could be coded in a private room of the Family Life Center. The office was locked when the secretary was not there and
following coding, the manuscripts were kept in a locked storage room in the basement of the Family Life Center and were destroyed at the completion of the analysis.

In the final analysis, the neutral group was dropped out of the study for several reasons. The first reason was the small sample size. With 14 in the sample, there was not a large enough $n$ to justify including the group in the MANOVA calculations. Another reason the group was not used was the result of their written responses. The couples were allowed to write about their general impressions of marriage and many of the entries were positive in nature. Sixty-two percent of the entries were positive. This is a significant portion of the writing, but not near as high a percent as the positive group. There was a big enough difference (35%) that a case could not be made to include the group with the positive writing group. The final reason the group was not included in the analysis was that the neutral group was used to provide a baseline to compare the positive and negative groups to. As a result of coding the written responses and given the small sample size, it was determined that the data may not provide a stable baseline and thus the group was excluded from the analyses.

There were not statistically significant differences in the OQ pretest between the positive ($m = 37.70, sd = 17.64$) and negative ($m = 39.76, sd = 22.07; t = -.54, p > .05$) groups. There also were not statistically significant differences in the RDAS when comparing the positive ($m = 51.72, sd = 6.92$) and negative ($m = 49.26, sd = 8.67; t = 1.65, p > .05$) groups.
CHAPTER IV
RESULTS

This thesis focused on the use of writing with married couples and its effects on individual distress levels and marital satisfaction. Writing groups were divided into three categories: positive, negative, and neutral. The participants were randomly distributed to each group.

Reliability of the OQ and the RDAS was calculated using Cronbach’s alpha (Cronbach, 1951) and the retest method (Carmines & Zeller, 1979). The results for the OQ were 0.94 (time 1) and 0.94 (time 2). The results for the RDAS were 0.92 (time 1) and 0.90 (time 2).

A 2 (group) x 2 (gender) x 2 (time) repeated measures multivariate analysis of variance (MANOVA) was conducted with the collected data. MANOVA is typically used to measure the statistical significance of the effect of one or more independent variables on a set of two or more dependent variables (Weinfurt, 1995). The MANOVA is a technique used when there is more than one dependent variable. In this case, there were two: marital satisfaction and individual distress. MANOVA also requires that the dependent measures be correlated. It is hypothesized (Gottman, 1994) that satisfied individuals tend to have happier interpersonal relationships than unsatisfied individuals. This is why individual distress levels were collected along with marital satisfaction levels.

Weinfurt (1995) discussed three necessary conditions that must be met before a MANOVA can be used to analyze data. The conditions are (1) multivariate normality,
(2) homogeneity of the covariance matrices, and (3) independence of observations.

Multivariate normality assumes that the individual dependent variables be distributed normally. In this research project, no marital or individual distress exclusionary criteria was used, thus improving the normal distribution of the data. There were individuals who participated in the study who were both unhappily and happily married. There were also participants with low and high individual distress symptoms. Histograms were run for the dependent variables and the data were distributed normally. When MANOVA was conducted, the Greenhouse-Geyser measure was identical to the Pillai’s. If there were normality problems, the Greenhouse-Geyser portion would produce different results.

MANOVA assumes that the covariance between all unique pairs of dependent measures be equal for all experimental groups. The null hypothesis is that the groups have equal covariance matrices. If the test yields statistical significance, it is likely that the groups are not homogenous with respect to covariance matrices.

The most important assumption of the MANOVA is that observations are independent of one another. This simply means that the subject’s scores are not influenced by other subjects in the experimental groups. Each of the subjects who participated in this study took the OQ and the RDAS individually and separately. The couples were not instructed to share their journal entries or answers to the measures with each other. This safeguarded the individual scores from outside forces.

It was originally planned to analyze the data based on gender to be consistent with the literature on verbal expression. This is only appropriate if the data are not highly correlated. Table 3 illustrates the Pearson correlations.
Table 3

Husbands and Wives Correlations for Pre- and Posttest on OQ Totals and Subscales and RDAS Totals and Subscales

<table>
<thead>
<tr>
<th></th>
<th>Pre-Intervention</th>
<th>Post-Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total OQ score</td>
<td>0.44</td>
<td>0.44</td>
</tr>
<tr>
<td>Subjective distress</td>
<td>0.42</td>
<td>0.40</td>
</tr>
<tr>
<td>Interpersonal relations</td>
<td>0.65</td>
<td>0.50</td>
</tr>
<tr>
<td>Social role performance</td>
<td>0.29</td>
<td>0.48</td>
</tr>
<tr>
<td>Total RDAS score</td>
<td>0.72</td>
<td>0.71</td>
</tr>
<tr>
<td>Dyadic consensus</td>
<td>0.65</td>
<td>0.64</td>
</tr>
<tr>
<td>Dyadic satisfaction</td>
<td>0.58</td>
<td>0.63</td>
</tr>
<tr>
<td>Dyadic cohesion</td>
<td>0.69</td>
<td>0.69</td>
</tr>
</tbody>
</table>

It was decided that if the correlations were 0.70 or higher then the couple data would be used instead of analyzing the individual. If this was the case, it would embody roughly 50% of the variance, still leaving much unaccounted for. The only scores that correlated at 0.70 or higher between husbands and wives was the total RDAS pre- and posttests. When the couple data were combined, change from time one to time two was statistically significant at the $p < .05$ level, although the data did not correlate at a high enough rate to justify using couple data versus individual data set apart by gender. Analysis of individual data was used as a result of these correlations.

Research has shown that individual distress and marital satisfaction are correlated
much of the time. A Pearson correlation was analyzed comparing the OQ pre- and post-
test scores and the RDAS pre- and posttest scores. Each of the measures (pre- and
posttest) were correlated with the other measures at statistically significant levels. The
correlations add internal validity to the research because the correlations are in the
expected direction. Marital satisfaction increases are correlated with individual distress
decreases and vice versa. The results are shown in Table 4.

The mean scores for the positive and negative writing groups were calculated for
the OQ and the RDAS. The higher the score on the OQ, the more distressed the
individual is. The clinical cutoff is 63 and signals high levels of distress. The range of
scores was from a total of three to 102, suggesting there was a wide range of low to
highly distressed individuals in the sample. The higher the score on the RDAS, the

Table 4

Pearson Correlations for Pre- and Posttest Measures (n = 110)

<table>
<thead>
<tr>
<th>Measure</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Total OQ Time 1</td>
<td>-</td>
<td>0.79</td>
<td>-0.63</td>
<td>-0.52</td>
</tr>
<tr>
<td>2. Total OQ Time 2</td>
<td>-</td>
<td>-</td>
<td>-0.51</td>
<td>-0.51</td>
</tr>
<tr>
<td>3. Total RDAS Time 1</td>
<td>-</td>
<td>-</td>
<td></td>
<td>0.86</td>
</tr>
<tr>
<td>4. Total RDAS Time 2</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.* The OQ and the RDAS are negatively correlated due to the different scoring
methods.
higher a person is rating their marital satisfaction levels. The range of scores was from 32 to 66, also suggesting there was a wide range of low to high maritally satisfied individuals in the sample. The means indicate some movement following the writing intervention. Table 5 lists the mean scores and standard deviations for each group on each measure.

There are several tests of significance that are used for the MANOVA (Pillai's Trace, Wilks' Lambda, Hotelling's Trace, and Roy's Largest Root). In all of the tests results, the significance was the same between the four tests of significance. Hotelling's Trace is cited in this study though, as it is an extension of the t-test (Glass & Hopkins, 1992) and most appropriately fits the 2 x 2 x 2 design of the MANOVA. The findings of the MANOVA analysis are shown in Tables 6 and 7.

The results from research questions one and two showed that type of writing (positive or negative) and gender did not make a difference, but that time was significant. The only intervention applied was writing and valence did not seem to matter. Distress scores dropped for males and females in both the positive and negative writing groups, while marital satisfaction scores increased.

The only variable that is statistically significant is time. There was statistically significant change from pre-test to posttest for both the OQ and the RDAS at the $p < .01$ level. The change on the individual from time one to time two was significant across gender and group assignment, while gender and group did not statistically affect the outcome. The research hypothesis was that time would be a significant factor and that individual distress scores would go down, while marital satisfaction scores would go up, autonomous of gender or writing group assignment. This was supported by the results.
Table 5

Means and Standard Deviations for Males and Females Pre- and Posttest Results

<table>
<thead>
<tr>
<th></th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Positive writing group n = 60</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre OQ total</td>
<td>34.17</td>
<td>17.61</td>
</tr>
<tr>
<td>Post OQ total</td>
<td>28.17</td>
<td>15.54</td>
</tr>
<tr>
<td>Pre RDAS total</td>
<td>52.27</td>
<td>7.13</td>
</tr>
<tr>
<td>Post RDAS total</td>
<td>53.97</td>
<td>6.12</td>
</tr>
<tr>
<td>Negative writing group n = 50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre OQ total</td>
<td>37.84</td>
<td>23.03</td>
</tr>
<tr>
<td>Post OQ total</td>
<td>29.36</td>
<td>17.66</td>
</tr>
<tr>
<td>Pre RDAS total</td>
<td>50.08</td>
<td>7.94</td>
</tr>
<tr>
<td>Post RDAS total</td>
<td>52.04</td>
<td>6.27</td>
</tr>
<tr>
<td>Combined total n = 110</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre OQ total</td>
<td>35.84</td>
<td>20.14</td>
</tr>
<tr>
<td>Post OQ total</td>
<td>28.71</td>
<td>16.39</td>
</tr>
<tr>
<td>Pre RDAS total</td>
<td>51.27</td>
<td>7.52</td>
</tr>
<tr>
<td>Post RDAS total</td>
<td>53.10</td>
<td>6.21</td>
</tr>
</tbody>
</table>
Table 6

MANOVA Results for OQ Measure

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of squares III</th>
<th>df</th>
<th>Mean square</th>
<th>F</th>
<th>Partial eta</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>266789.31</td>
<td>1</td>
<td>266789.31</td>
<td>420.36</td>
<td>0.73</td>
</tr>
<tr>
<td>Gender</td>
<td>1457.94</td>
<td>1</td>
<td>1457.94</td>
<td>2.30</td>
<td>0.01</td>
</tr>
<tr>
<td>Group</td>
<td>6.06</td>
<td>1</td>
<td>6.06</td>
<td>0.00</td>
<td>0.01</td>
</tr>
<tr>
<td>Gender x group</td>
<td>322.09</td>
<td>1</td>
<td>322.09</td>
<td>0.51</td>
<td>0.00</td>
</tr>
<tr>
<td>Error</td>
<td>67274.79</td>
<td>106</td>
<td>(634.67)</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Within subjects</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>3087.30</td>
<td>1</td>
<td>3087.30</td>
<td>41.26**</td>
<td>0.19</td>
</tr>
<tr>
<td>Time x gender</td>
<td>4.38</td>
<td>1</td>
<td>4.38</td>
<td>0.06</td>
<td>0.01</td>
</tr>
<tr>
<td>Time x group</td>
<td>230.72</td>
<td>1</td>
<td>230.72</td>
<td>3.08</td>
<td>0.03</td>
</tr>
<tr>
<td>Time x gender x grp.</td>
<td>36.38</td>
<td>1</td>
<td>36.38</td>
<td>0.49</td>
<td>0.02</td>
</tr>
<tr>
<td>Error (time)</td>
<td>7931.78</td>
<td>106</td>
<td>(74.83)</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**p < .01.

Analysis was also conducted to examine the change in individuals who reported clinical distress levels. The implications for therapy may be impacted by the results, as the selected sample are markedly different than the rest of the sample in reported individual distress. When the cases were extracted, there were 12 that had reported
Table 7

MANOVA Results for RDAS Measure

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of squares III</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Partial eta</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>578448.02</td>
<td>1</td>
<td>578448.02</td>
<td>5980.55</td>
<td>0.97</td>
</tr>
<tr>
<td>Gender</td>
<td>78.11</td>
<td>1</td>
<td>78.11</td>
<td>0.81</td>
<td>0.00</td>
</tr>
<tr>
<td>Group</td>
<td>293.59</td>
<td>1</td>
<td>293.59</td>
<td>3.04</td>
<td>0.02</td>
</tr>
<tr>
<td>Gender x group</td>
<td>3.78</td>
<td>1</td>
<td>3.78</td>
<td>0.04</td>
<td>0.00</td>
</tr>
<tr>
<td>Error</td>
<td>10252.48</td>
<td>106</td>
<td>(96.72)</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

| Within subjects | | | | | |
|-----------------| | | | | |
| Time            | 218.91             | 1  | 218.91      | 27.15** | 0.18       |
| Time x gender   | 1.64               | 1  | 1.64        | 0.20   | 0.00        |
| Time x group    | 1.02               | 1  | 1.02        | 0.13   | 0.00        |
| Time x gender x grp. | 2.42 | 1  | 2.42        | 0.00   | 0.00        |
| Error (time)    | 854.83             | 106| (8.06)      | --    | --          |

**p < .01.

clinically distressed scores on the OQ. Two males and three females were from the positive group and four males and three females were from the negative group.

The mean scores for the positive and negative writing groups were calculated for the OQ and the RDAS for the selected cases. The means indicate movement following
the writing intervention. The OQ scores decreased while the RDAS scores increased indicating positive change. Table 8 lists the mean scores and standard deviations for each distressed group on each measure. The small $n$, however, precluded statistical comparisons.

The clinically distressed groups reported more change than the lower distress groups. The males in both the positive and negative writing groups dropped from clinically distressed to nondistressed. Only the females in the negative writing group dropped from distressed to nondistressed.
### Table 8

**Means and Standard Deviations for Clinically Distressed Males and Females Pre- and Posttest Results**

<table>
<thead>
<tr>
<th></th>
<th>Males</th>
<th></th>
<th>Females</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$M$</td>
<td>$SD$</td>
<td>$M$</td>
<td>$SD$</td>
</tr>
<tr>
<td>Positive writing group $n = 5$ individuals</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre OQ total</td>
<td>73.50</td>
<td>4.95</td>
<td>73.67</td>
<td>4.62</td>
</tr>
<tr>
<td>Post OQ total</td>
<td>46.00</td>
<td>31.11</td>
<td>75.67</td>
<td>17.56</td>
</tr>
<tr>
<td>Pre RDAS total</td>
<td>42.00</td>
<td>9.90</td>
<td>52.00</td>
<td>7.00</td>
</tr>
<tr>
<td>Post RDAS total</td>
<td>49.50</td>
<td>0.71</td>
<td>56.00</td>
<td>8.54</td>
</tr>
<tr>
<td>Negative writing group $n = 7$ individuals</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre OQ total</td>
<td>72.50</td>
<td>7.32</td>
<td>89.00</td>
<td>9.85</td>
</tr>
<tr>
<td>Post OQ total</td>
<td>52.00</td>
<td>11.46</td>
<td>62.00</td>
<td>33.15</td>
</tr>
<tr>
<td>Pre RDAS total</td>
<td>42.25</td>
<td>1.89</td>
<td>31.00</td>
<td>10.58</td>
</tr>
<tr>
<td>Post RDAS total</td>
<td>48.75</td>
<td>5.06</td>
<td>37.33</td>
<td>10.01</td>
</tr>
<tr>
<td>Combined total $n = 12$ individuals</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre OQ total</td>
<td>72.83</td>
<td>6.11</td>
<td>81.33</td>
<td>10.85</td>
</tr>
<tr>
<td>Post OQ total</td>
<td>50.00</td>
<td>16.79</td>
<td>68.83</td>
<td>24.88</td>
</tr>
<tr>
<td>Pre RDAS total</td>
<td>42.17</td>
<td>4.67</td>
<td>41.50</td>
<td>14.02</td>
</tr>
<tr>
<td>Post RDAS total</td>
<td>49.00</td>
<td>3.95</td>
<td>46.67</td>
<td>13.19</td>
</tr>
</tbody>
</table>
CHAPTER V

DISCUSSION

The purpose of this study was to examine the effects of writing about marital experiences on marital satisfaction with couples. The writing groups were examined on the individual level as well as paired with spouses. The pairing did not correlate at a significant level between husbands and wives, and thus the couple data were not used.

The positive and negative groups saw statistically significant change from time one to time two. The neutral group was not used in the final analysis due to the small sample size and the content of the written responses. The reason a comparison or neutral group was used was to provide a baseline comparison for the experimental groups. The neutral group’s purpose was to extend validity to the experimental writing exercises.

From the limited data on the neutral writing group, it is difficult to determine what the results of that group would have been had there been a larger n to support their inclusion in the project. The mean scores of the neutral group were similar to the other two groups on the OQ and the RDAS, suggesting that about the same effect transpired among groups. This is not surprising, in that the participants were writing about their marriage and many of them chose to write about positive or negative marital experience.

Overall, about a third of the committed participants finished the entire project. The neutral group had a much lower response rate than did the positive and negative writing groups. It is possible that the positive and negative writing increased positive feeling about the individual and the marriage and increased the commitment to finish the project. Another idea is that the assignment of writing about general impressions of
marriage did not entice participants to complete the assignment.

The neutral group was asked to journal about their impressions of marriage or to discuss marital experience as it applies to them. Many of these entries were positive in nature (62%). Given the choice to write about any thing they choose about marriage most of the participants were positive about their marital experience. There are several things to which this could be attributed. First is that social desirability may play a role in how individuals discuss their marriage and may influence a person to be positive whether or not they feel that is true, and second the individuals may just have been happy and enjoying their marital experience.

Research question one stated: Will there be a change in individual distress and marital satisfaction when comparing pre- and posttest data of the positive writing intervention for husbands and wives? The answer to this is yes, there was a change in individual distress and marital satisfaction. These changes were over a one month period during which the writing intervention was facilitated.

Because no other research is available at this time that examines the effects of writing on marital satisfaction, it is only possible to compare individual distress levels with previous research. Pennebaker (1997) found that the more individuals use positive emotion words, the better their health. L’Abate (1999) used positive writing to help couples begin to build more intimacy in their relationship, and Leavitt and Pill (1995) found that positive writing can help a person express emotions and actuate personal growth. Pennebaker (1990) found that positive writing helps individuals understand and appreciate events that occur in their lives and attaches meaning to personal experience.

L’Abate (1995) reported that there may be several emotional and cognitive
benefits to positive writing. Gottman’s (1994, 1999) research shows that creating and maintaining positive sentiment for one’s spouse is common among couples satisfied with their marital relationship. Some of the benefits of this are more cognitive space is reserved for one’s spouse and more respect, fondness, admiration, and appreciation is felt by the partner. The overall results of this research are consistent with previous studies and showed that positive writing benefits individuals by helping lower individual distress and raising marital satisfaction.

The distressed women \( (n = 3) \) that participated in this group stayed distressed from time one to time two. Two inferences are made: one, the number of women this happened with was only three and may have happened due to happenstance, and two, positive writing may not help highly distressed women, although if they were distressed and were not receiving treatment, they most likely would have stayed distressed on the measure.

Research question two stated: Will there be a change in individual distress and marital satisfaction when comparing pre- and posttest data of the negative writing intervention for husbands and wives? The answer to this is question is yes, there was a change in individual distress and marital satisfaction. These changes were also over a one month period during which the writing intervention was conducted.

There is much more published research on the therapeutic benefits of negative expression through writing versus positive writing. Pennebaker (1997) discussed the reduction of inhibitions through writing about negative emotions or experiences and also states that by putting events down on paper, individuals are more likely to reach an understanding of an event or experience. The researcher also suggested that by
expressing negative emotion on paper, negative feelings may alleviate altogether. Smyth et al. (1999) found that following writing about the most stressful experiences of their lives, participants saw improved body functioning related to illnesses and Esterling, et al. (1994) found that writing about stressful events played a role in symptom reduction for physical ailments. L’Abate and Platzman (1991) reported that by putting feelings down on paper, a person may find it easier to be objective about their situation and relationship. Cartwright (1996) suggested that negative emotional expression can help an individual express emotions that were difficult to express verbally. The cathartic nature of expressing negative emotions has often been examined (Henke, 1998; Leavitt & Pill, 1995; Reichert, 1994). The results of this research project are consistent with previous research on the benefits of writing about negative events. The results indicate that writing about negative or stressful marital experience help lower individual distress and raise marital satisfaction.

In the experimental groups the OQ mean scores for each writing group for both males and females decreased while the RDAS mean scores increased. While gender and group were not statistically significant factors, both genders and groups saw change in individual distress levels and marital satisfaction levels. The males reported an average 20% change in OQ scores (positive = 18%, negative = 22%) and a 3% change in RDAS scores (positive = 3%, negative = 4%). The females reported an average 18% change in OQ scores (positive = 12%, negative = 26%) and a 4% change in RDAS scores (positive = 4%, negative = 5%).

The participant’s scores identify more change in individual distress levels than in marital satisfaction. This may be due to the common fluctuation of each. For many
individuals, their individual distress may vary depending on home life, work, school, family or other life stressors. Marital satisfaction is a more static function of couples relationships and may be slower to change. Regardless, there was change in the pre- and posttest data for the positive and negative writing groups.

It was interesting to notice that the negative group for males and females produced a larger change in individual distress and marital satisfaction than the positive group (although group assignment was not statistically significant). The positive writing group produced significant change as well, but not as much.

The clinically distressed level participants saw more change in overall than the non-clinically distressed individuals. The males saw an average 31% change in OQ scores (positive = 37.5%, negative = 28%) and a 14% change in RDAS scores (positive = 15%, negative = 13%). The females saw an average 15% change in OQ scores (positive = +3%, negative = 30%) and a 11% change in RDAS scores (positive = 7%, negative = 17%). This fits in with the research hypothesis that writing can be used in therapy to help clinically distressed individuals (Jordan & L’Abate, 1995; Sloman & Pipitone, 1991; Smyth et al., 1999). Writing gives a reference point and people may reevaluate their circumstances and relationship differently.

The sample of clinically distressed individuals was relatively small, so these results should be interpreted cautiously. There was change among the groups, but the female positive groups actually reported higher distress scores on the posttest measure. The fact that the vast majority of the participants showed improvement is heartening and it leads the way for clinical research to be conducted with distressed individuals.

The MANOVA analysis detected a significant change involving only time.
Gender and writing group did not manifest statistically significant results. These results are consistent with other research (L'Abate, 1999; L'Abate & Platzman, 1991) and data on therapeutic writing. It supports the hypothesis that writing about marital experience produces positive results for many individuals, regardless of gender or tone of emotional expression. Both the males and females in the positive and negative writing groups produced similar results in individual distress levels as well as marital satisfaction levels. Even though the females produced longer journal entries in both of the groups, this did not seem to impact the results of the intervention.

Implications for Therapy

Information useful to marital therapists was gathered from this research. The statistical level of significance of the time factor supported the hypothesis that writing can stimulate change in individual distress and marital satisfaction. An important point is that it has similar effects on males and females. This supports the hypothesis that writing can be used in work with couples. When looking at the trends in the data, marked differences in individual distress scores transpired, while modest marital satisfaction change occurred. The negative writing group also generated more change in individual distress and marital satisfaction levels than did the positive writing group.

A therapist may choose to use writing for couples for several reasons. It can cut down on the length, cost, and duration of therapy. Also, some couples get stuck in set patterns of communicating. The use of writing may slow down the emotional escalation process that is common with distressed couples. Writing may also promote understanding of each other while helping the individual and couple more clearly...
comprehend the situation and feelings associated with it by reading the written entries assigned to them.

A therapist may wish to use a positive writing assignment for a couple to help them identify positive aspects of their relationships. Writing about positive events may remind the couple of the good in their relationship when they get bogged down with negative emotions regarding their relationship and foster “love maps” (Gottman, 1994, 1999). It has the potential to create positive cognitive space in the couple’s minds. Positive writing may also provide a resource that can be read in times of distress or lower marital satisfaction (Pennebaker, 1990). Positive writing can also be used to increase couple intimacy (L’Abate, 1999).

A therapist may also assign couples a negative writing assignment to help them identify problem spots in their relationship or to release negative emotions (Lange, 1996). The assignment may also be given to break negative patterns that have been established (Cartwright, 1996). Negative expression of emotions can be very ablutionary for individuals (Pennebaker & Beall, 1986). The writings may not even have to be shared between spouses, but the expression of emotion itself may be helpful.

Systemically, writing assignments can be used for the individual or the couple and may alter set patterns. Individual and relationship changes that occur will have some impact on the other parts of the system. For most couples, the use of writing is something that they have not ever used as a communication tool. The introduction of a new stimulus into the system will produce a homeostatic response or begin a feedback loop for the couple. The therapist may discover more individual emotional information from writing as opposed to verbal expression where interruptions may occur and reactions are more
spontaneous expression, rather than organized thought expressed through writing.

Several theoretical approaches to therapy have potential to incorporate writing interventions. Solution-focused and narrative therapies (Goldenberg & Goldenberg, 1996) are two approaches that could easily incorporate writing. An idea of solution-focused therapy is to concentrate on the end results. If the end result is to overcome specific difficulties in a marriage and improve positive interaction and sentiment for each other, then distinctive writing assignments could be developed to help the couple meet those goals. The progressive changes made would also build on one another and move the clients closer to their end goal. Narrative therapy has a focus on rewriting past negative experiences and developing new narratives that are more desired for the future. Writing interventions could be used to create objectivity for past events and facilitate emotional expression of the event. Writing could also be used to develop the new narrative desired for the future. A husband and wife may have different perspectives on what is desired and writing will allow for both perspectives to be heard.

Limitations

There were two major limitations of this study, the sample and design. The sample that was used was a convenience sample and limited generalizability to the population as a whole. While the sample may have been somewhat representative of the state of Utah, it was a homogenous group demographically. The majority of the participants were Caucasian, well educated, and Mormon. This does not allow for much generalizability to other ethnic or religious populations.

The research conducted had a design limitation. Using an experimental design
rather than a quasi-experimental design would have given a control group and baseline data that could have been compared to the experimental group. By not having a control group, the design was weakened.

Another limitation is that participants did not follow guidelines exactly. Although not a high percentage, there were several sentences found within the negative entries that were positive in nature and a few sentences scattered throughout the positive entries that were negative in nature.

The low response rate for the neutral group is also problematic. While the positive and negative writing may have engendered a response, for some reason couples assigned to the neutral group did not choose to write and/or return their questionnaires.

Recommendations

Future research of therapeutic writing would be benefitted by obtaining a larger random sample and a more diverse ethnic, educated, and religious population to sample from. A longer writing intervention would contribute more data to the field and give direction to how much is appropriate for individuals and couples. A long-term longitudinal study was not in the scope of this project, but more follow-up and length of time would be areas of future research. Future research couple also implement a true experiment design to facilitate the use of a control group.

Future research could focus on a clinical sample in conjunction with specific therapy models. Using a clinical sample also would provide specific clinical data to therapists that is not available with this study. This would permit greater generalization to a clinical population. Perhaps a more in depth study involving marital therapy clients
and specific marital problems could be conducted with various writing assignments. Future research could be used to further examine different aspects of marital problems and writing assignments may give a distinct perspective to the researcher that other modalities may not.
REFERENCES


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Journal of the American Medical Association, 281(14), 1304-1309.


APPENDICES
Appendix A. Participant Letter, Demographics Questionnaire, and Writing Instructions
Introduction

Professor Allgood in the Department of Family and Human Development at Utah State University is conducting a research study to find out more about the effects of writing on marital satisfaction. The process of writing has been an important part of the change process for individuals and couples. Despite the popularity of writing, there is little research that shows how writing affects a marriage. This study is designed to have couples write about their marriage to determine how writing may be beneficial to a marriage. You have been asked to take part in this study after being contacted by a student at USU.

Procedures

Your participation is voluntary and you can choose to withdraw at any time without consequence. Deciding not to participate will not influence your relationship with USU in any way. Participation instructions are attached. You will be asked to fill out questionnaires and write in a journal for three days. You will be asked to fill out a new set of questionnaires in a few weeks. Your participation should take a total of about 1.5 hours (spread out over several days). To insure that your follow-up responses are paired with your writing, an identification number will be put on the questionnaires. Following data collection, the master sheet will be destroyed. Please do not put your name on any paperwork. The questionnaires will be kept in a locked file cabinet in a locked room where only Dr. Allgood and Brad Hess will have access to them. The questionnaires will be kept on file for the duration of the research project and will be destroyed upon completion (completion is estimated to be June 2001). Returning the questionnaires and other written materials will constitute your informed consent. The Institutional Review Board for the protection of human subjects at Utah State University has reviewed and approved this research project.

Risks and Benefits

There is minimal risk in participating in this research project, although it is possible that you may experience some emotional distress as you express your feelings. If it becomes bothersome or severe, please contact Dr. Allgood or Brad Hess for consultation or a therapy referral. There may or may not be any direct benefit to you from these procedures, although it is possible that you may experience a higher level of marital satisfaction by participating. The investigators may learn more about what styles of writing improve marital satisfaction. The information gained from this study may broaden knowledge about marital satisfaction and assist others in the future.

Contact Information

You participation and contribution to this effort is greatly appreciated. If you would like a summary of the results, please contact either Dr. Allgood or Brad Hess and we will make arrangements for you to obtain a copy of the results. We would be happy to answer any questions that you may have. This is part of a masters thesis project and you are welcome to contact either one of us. Dr. Allgood or Brad Hess can be reached at (435) 797-7430.

Thank you for your assistance,
Sincerely,

Scott M. Allgood, Ph.D.
Principal Investigator

Brad Hess
Student Researcher
Research Participant Demographic Information

1. What is your gender? (Circle one)
   Male        Female

2. What is your age? ______

3. How many years have you been married? ______

4. How many times have you been married? ______

5. Number of children: ______

6. How do you define yourself racially? (Circle one)
   Caucasian    Latino    Asian
   African-American    Other ______

7. Years of education completed (high school = 12) ______

8. What is your total household annual income? ______

9. What is your religious affiliation (if any)? (Circle one)
   LDS        Catholic    Protestant
   None        Other ______

10. What is your employment status? (Circle one)
    Full-time        Part-time
    Unemployed        Retired

11. Do you write in a journal on a regular basis? (Circle one)
    Yes        No
Participation Instructions

Thank you for your willingness to participate in this research project. Recently, an undergraduate student at Utah State University contacted you and asked you to participate in a research project. In order to be selected for this project, you should be married for a minimum of five years.

Your participation should take a total of about an 1.5 hours (spread out over several days). If you have not already, please read the attached informed consent. Following that, please read the instructions and answer the questionnaires. This should take about 15 minutes.

The next step will be the writing intervention. You may begin today if you like, or you may begin anytime within the next two days. Once you begin, I ask that you write on three consecutive days. You are asked to write for twenty minutes each day (please write at the most convenient time of day for you). This may be similar to a journal entry.

We would like for you to write about positive marital experiences. Feel free to write about the most satisfying and memorable parts of your marriage and relationship. Please write freely about what comes to mind and write continuously without regard for spelling or stylistic concerns. You may hand-write or type your entries.

After your third day of writing, please send your questionnaires and entries back in the prepaid envelope. You will be mailed the Revised Dyadic Adjustment Scale and the OQ -45.2 in about a month as a follow-up procedure. They should take about 15 minutes to complete again.

Thank you very much,

Scot M. Allgood, Ph.D.
Principal Investigator

Brad Hess
Student Researcher
Participation Instructions

Thank you for your willingness to participate in this research project. Recently, an undergraduate student at Utah State University contacted you and asked you to participate in a research project. In order to be selected for this project, you should be married for a minimum of five years.

Your participation should take a total of about an 1.5 hours (spread out over several days). If you have not already, please read the attached informed consent. Following that, please read the instructions and answer the questionnaires. This should take about 15 minutes.

The next step will be the writing intervention. You may begin today if you like, or you may begin anytime within the next two days. Once you begin, I ask that you write on three consecutive days. You are asked to write for twenty minutes each day (please write at the most convenient time of day for you). This may be similar to a journal entry.

We would like for you to write about unpleasant or negative marital experiences. Feel free to write about stressful marital experiences that you have experienced. It is possible that you may experience some emotional distress as you express your feelings. If it becomes bothersome or severe, please contact us for consultation or a therapy referral. Please write freely about what comes to mind and write continuously without regard for spelling or stylistic concerns. You may hand-write or type your entries.

After your third day of writing, please send your questionnaires and entries back in the prepaid envelope. You will be mailed the Revised Dyadic Adjustment Scale and the OQ-45.2 in about a month as a follow-up procedure. They should take about 15 minutes to complete again.

Thank you very much,

Scot M. Allgood, Ph.D.  Brad Hess
Principal Investigator  Student Researcher
Participation Instructions

Thank you for your willingness to participate in this research project. Recently, an undergraduate student at Utah State University contacted you and asked you to participate in a research project. In order to be selected for this project, you should be married for a minimum of five years.

Your participation should take a total of about an 1.5 hours (spread out over several days). If you have not already, please read the attached informed consent. Following that, please read the instructions and answer the questionnaires. This should take about 15 minutes.

The next step will be the writing intervention. You may begin today if you like, or you may begin anytime within the next two days. Once you begin, I ask that you write on three consecutive days. You are asked to write for twenty minutes each day (please write at the most convenient time of day for you). This may be similar to a journal entry.

We would like for you to write about your general impressions of marriage. Feel free to write about marital experience as it applies to you. Please write freely about what comes to mind and write continuously without regard for spelling or stylistic concerns. You may hand-write or type your entries.

After your third day of writing, please send your questionnaires and entries back in the prepaid envelope. You will be mailed the Revised Dyadic Adjustment Scale and the OQ-45.2 in about a month as a follow-up procedure. They should take about 15 minutes to complete again.

Thank you very much,

Scot M. Allgood, Ph.D.
Principal Investigator

Brad Hess
Student Researcher
Appendix B. OQ-45.2 Questionnaire and Revised Dyadic Adjustment Scale
Outcome Questionnaire (OQ™-45.2)

Instructions: Looking back over the last week, including today, help us understand how you have been feeling. Read each item carefully and mark the box under the category which best describes your current situation. For this questionnaire, work is defined as employment, school, housework, volunteer work, and so forth.

| Name: __________________ | Age: ______ |
| ID# __________________   | Sex M [ ] F [ ] |

**Session # ______ Date ______**

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

*Developed by Michael J. Lambert, Ph.D., and Gary A. Woodruff, Ph.D.*

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**SD IR SR**

*Note: IR = Internal Responsibility; SR = Social Responsibility.*

**Total =**

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*[For more information on the OQ™-45.2, visit the website provided in the document.]*
Revised Dyadic Adjustment Scale

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

<table>
<thead>
<tr>
<th></th>
<th>Always Agree</th>
<th>Almost always agree</th>
<th>Occasionally disagree</th>
<th>Frequently disagree</th>
<th>Almost always disagree</th>
<th>Always disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Religious matters</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>2.</td>
<td>Demonstrations of affection</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>3.</td>
<td>Making major decisions</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>4.</td>
<td>Sex relations</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>5.</td>
<td>Career decisions</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>6.</td>
<td>Conventionality (correct or proper behavior)</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>All the time</th>
<th>Most of the time</th>
<th>More often than not</th>
<th>Occasionally</th>
<th>Rarely</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.</td>
<td>How often do you discuss or have you considered divorce, separation, or terminating your relationship?</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>8.</td>
<td>How often do you and your partner quarrel?</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>9.</td>
<td>Do you ever regret that you married (or lived together)?</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>10.</td>
<td>How often do you and your mate &quot;get on each other's nerves&quot;?</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Everyday</th>
<th>Almost every day</th>
<th>Occasionally</th>
<th>Rarely</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.</td>
<td>Do you and your mate engage in outside interests together?</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Less than Once a month</th>
<th>Once or twice a month</th>
<th>Once or Twice a week</th>
<th>Once a day</th>
<th>More often</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.</td>
<td>Have a stimulating exchange of ideas</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>13.</td>
<td>Work together on a project</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>14.</td>
<td>Calmly discuss something</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
Appendix C. Institutional Review Board (IRB) Approval for Human Subjects Research
MEMORANDUM

TO: Scot Allgood
    Brad Hess

FROM: True Rubal. IRB Administrator

SUBJECT: The Effects of Writing on Marital Satisfaction

April 10, 2001

Your proposal has been reviewed by the Institutional Review Board and is approved under expedite procedure #7.

There is no more than minimal risk to the subjects.
There is greater than minimal risk to the subjects.

This approval applies only to the proposal currently on file for the period of one year. If your study extends beyond this approval period, you must contact this office to request an annual review of this research. Any change affecting human subjects must be approved by the Board prior to implementation. Injuries or any unanticipated problems involving risk to subjects or to others must be reported immediately to the Chair of the Institutional Review Board.

Prior to involving human subjects, properly executed informed consent must be obtained from each subject or from an authorized representative, and documentation of informed consent must be kept on file for at least three years after the project ends. Each subject must be furnished with a copy of the informed consent document for their personal records.

The research activities listed below are exempt from IRB review based on the Department of Health and Human Services (DHHS) regulations for the protection of human research subjects. 45 CFR Part 46, as amended to include provisions of the Federal Policy for the Protection of Human Subjects, June 18, 1991.

7. Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.