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Other-Centeredness and Depression
in a Sample of Mormon Women

A Thesis

Presented to the
Department of Psychology
Brigham Young University

In Partial Fulfillment
of the Requirements for the Degree
Master of Science

by

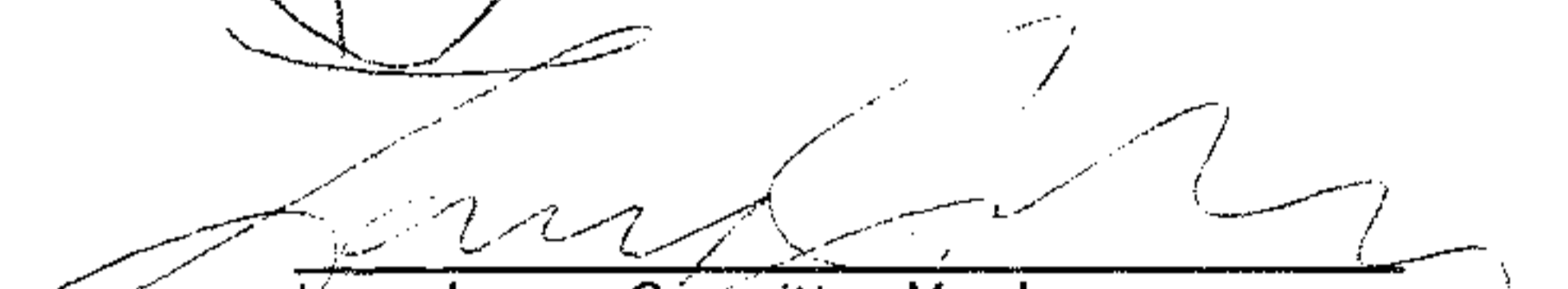
Janice G. Nielson

August 1994

This thesis by Janice G. Nielson is accepted in its present form by the Department of Psychology of Brigham Young University as satisfying the thesis requirement for the degree of Master of Science.




Kay H. Smith, Committee Chair



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CHAPTER ONE

Introduction

Statement of Purpose and Hypothesis

Depression has been a significant problem in our society. It impacts approximately 25% of the population (Degn, 1985). Beck and Beck (1979) state that depression is the most common psychiatric disorder outside mental institutions. About one out of every 200 persons suffering from depression will eventually die of suicide and the dollar cost of depressive illness is estimated to be between 1.3 and 4 billion dollars a year (Ericksen, 1979).

Judging from the large numbers of studies done on depression, along with their varying results, depression is a complex phenomenon. Though much research has been done to examine its etiology, this study takes a new perspective in looking for possible causes of depression: the relationship between depression and other-centeredness.

Other-centeredness, as defined in this research, is a focus of one's concern and attention on another person, rather than on oneself. It is the opposite of self-centeredness. It is service to others, concern about their welfare and well-being, and putting the wants and needs of others ahead of one's own desires. Though other-centeredness appears to be comparable to altruism, it is actually a particular type of altruism. Altruism is concerned with prosocial or helping behaviors and includes examining the motivations leading to prosocial behaviors as well as the situational factors that either promote or

discourage such helping behaviors. We find a number of explanations for why helping behavior occurs (including making oneself feel better). Other-centeredness is one of these explanations but attributes the behavior to the *focus* of the individual performing the action. If the paramount reason for acting is the improvement of the condition, circumstance, or happiness of the other, without regard to one's own welfare, the behavior is focussed away from the self and can be considered to be other-centered. This study will look at whether being other-centered as opposed to self-centered has anything to do with how much depression a person suffers.

It should be noted that although it is possible to look at self-centeredness and other-centeredness as two independent constructs, and that a measure may be taken of each separate construct, in this study other-centeredness and self-centeredness are treated as polar opposites on a single continuum. Therefore, a unitary construct is measured.

A frequent assumption is that individuals who forget themselves in the service of others become happier. If that is accepted we should see mostly acts of selflessness around us as people maximize their happiness. Instead, self interest and self-serving behaviors are manifest. Either the assumption is untrue, or people are not genuinely convinced that setting aside their selfish concerns for the good of someone else will actually yield happiness. This project is an attempt to see whether there really is a relationship between

forgetting the self and relief from depression. If such a relationship can be shown to exist it would give credence and substance to the intuitive assumption. Finding this evidence may then be valuable in encouraging other-centeredness as a prescription for depression alleviation and happiness. Thus, the specific purpose of this study is to answer the following question: Are those individuals with the greatest degree of depression less other-centered than those with the least degree of depression? Therefore, the hypothesis underlying this research is a straight-forward one: A higher rate of other-centeredness will be associated with a lower rate of depression.

CHAPTER TWO

Literature Review

The question of a relationship between other-centeredness and depression is not answered in the literature in as straight-forward a manner as one might assume. The common perception is that a person will feel better when he/she helps someone else, and this has long been among the advice given to someone suffering from a depressed mood. Though we intuitively accept such a relationship the empirical evidence for such an assumption is neither extensive nor conclusive.

There has been considerable research on factors that contribute to altruistic behaviors, but very little research on the psychological effects that *follow* the altruistic behaviors. In Roberta G. Simmons' (1991) review of the research history of altruism she includes two of the few studies concerning direct effects of altruistic behavior. Both studies, one pertaining to the donation of a kidney to a relative and the other concerning bone-marrow donors, showed that there was an increase in happiness and self-esteem after kidney donation. Simmons noted that the donors knew that they were being interviewed as donors and may have responded in a way they felt was expected of them. Fellner and Marshall (1970) interviewed kidney donors and found that the donors felt that the donation had been a meaningful experience in their life and had brought about beneficial changes. However, it is postulated

that there is a difference between large, dramatic acts of altruism such as the donation of a kidney and the daily helpfulness or small acts of altruism (Rosenhan, 1970). Because the other-centeredness we are looking at in this paper is likely composed mostly of the latter category, findings concerning the single, dramatic altruistic act may have an uncertain bearing on this research question.

In another line of research some work has been done to determine the results of cross-age tutoring. Yogev and Ronen (1982) did a before and after study where they compared high school students who tutored others, with their peers who were not tutors. They found that cross-age tutoring increased empathy, altruism and self-esteem. However, during the year-long study the tutors underwent extensive training where they were taught how to develop an empathic understanding for the students they were helping in order to perform the job well. They were also living up to the role expectations of their teachers as well as those they were tutoring. It is difficult to separate the effect of the training and the role expectations from naturally occurring psychological effects related to helping others.

In another study adolescents involved in community service activities were examined (Magen and Aharoni, 1991). The researchers found that those who participated were more likely to have a higher intensity of positive experiences, but the instrument used could just as well be a measure of

emotionality. The participants in both conditions were asked to relate a positive experience and the experience was rated for intensity. If the participants in the helping condition had been asked to relate a negative experience it may well be that their responses would be more intensely negative in comparison to the control group. Intensity may be the variable that was tested rather than direction--positive or negative.

One of the few articles in the literature relating selflessness and happiness was reported by Bernard Rimland (1982). Professor Rimland had college students list the ten people each student knew best and rate them as happy or not happy. Then they followed with a second rating of selfish or unselfish for each person. Results showed that the happy people were predominantly the unselfish people. The cautions in this study are that the judgments of a person's happiness and selfishness were made by others, and that cultural expectations regarding the relationship between the two things might contaminate the results. This introduces a possible methods bias.

One of the questions about altruistic motivations concerns the altering of mood. There is presently a lively controversy between two groups of researchers. One side of the debate maintains that people are motivated to perform altruistic acts because of a feeling of empathy (Batson, 1990; Dovidio, Allen & Schroeder, 1990; Batson, Batson, Griffitt, Barrientos, Brandt, Sprengelmeyer & Bayly, 1989). The other side believes that people are self-

interested and are motivated to help others in order to make themselves feel better. This is called the negative state relief hypothesis (Cialdini, Darby & Vincent, 1973; Baumann, Cialdini, & Kenrick, 1981; Cialdini & Kenrick, 1976; Cialdini, Schaller, Houlihan, Arps & Fultz, 1987). These latter researchers assert that if a person is in a negative mood state they will be more likely to be altruistic because the helping behavior will improve their mood--and therefore the helping is ultimately self-centered. Cialdini, et al. (1973), in one of the few references to depression, argued that negative states such as depression and sorrow lead to helping behaviors. This is counter to the intuitive supposition that depressed persons are so involved with their own despair that they think little of other people.

Other researchers have discounted the negative state relief hypothesis; their data showed that a negative mood decreased altruism (Underwood, Froming & Moore, 1977; Sherrod, Armstrong, Hewitt, Madonia, Speno & Teruya, 1977; Underwood, Berenson, Berenson, Cheng, Wilson, Kulik, Moore & Wenzel, 1977). Shaffer and Graziano (1983) found in a field study that people help only when the task has pleasant consequences. Smith, Keating and Stotland (1989) showed that empathically aroused witnesses offered help reliably to a person in distress only if they thought they were going to get feedback on the result. In one research undertaking the results showed that a person will be more likely to help if they think the other is worse off than

themselves

(Rosenhan, Salovey & Hargis, 1981).

There are several important notes to be made regarding the literature about altruism and mood. One point is that none of the above studies actually measured psychological states after the helping behaviors had taken place; they only measured the antecedents. This is important for the present research as we are concerned about the effects of other-centeredness. Though this study is not designed to determine causality, it is important to see what psychological states are related to actual helping behaviors. Secondly, as is evident, there can be no firm conclusions drawn regarding altruistic behavior at this time. And, finally, the fact that most researchers assume beneficial psychological effects from serving others gives some credence to the supposition that those effects actually exist in reality, even though empirical proof is scanty.

Though, as mentioned, none of the studies cited so far were concerned about the effects of altruism, a few experimenters did go a step further in their research design and test for the consequences of the helping behavior. Harris (1977) found that some but not all types of helping can produce a good mood, and Williamson and Clark (1989) discovered that if people desired a communal relationship they were more inclined to help, but not if it were an exchange relationship. One drawback of both studies is that they were conducted in

artificial experimental settings with limited hypotheses.

Of special interest in the present research was a study that found that other-centeredness increased altruistic acts (Thompson, Cowan & Rosenhan, 1980). The researchers induced a negative mood state in all of their subjects, but manipulated the focus of the subjects' attention. The subjects were asked to imagine the tragic death from cancer of a close friend. For some of the subjects their attention was focussed on the worry and anxiety that their friend was feeling (the other-centered condition), and in another group the subject's attention was directed toward their own sadness and discomfort at watching their good friend die (the self-centered condition). Both groups, as well as the control group, were then given an opportunity to help anonymously by filling out a tedious multiple choice questionnaire for a supposedly different experiment.

The results showed that the subjects who focussed on themselves were not motivated to altruistic behaviors, but those that had been directed toward the feelings of the other person were significantly more motivated to help. It appears that there does exist some kind of a relationship between other-centeredness and altruism, but once again no measure was made of the psychological effects of those altruistic behaviors.

The focus of a person's attention was investigated by Karylowski in 1982 (as reported by Piliavin & Charng, 1990), who found that if a person had

what he termed “endocentric altruism” they were living up to some kind of a moral imperative. In this condition it was necessary that the individual actually do the helping him/herself in order to feel gratification. The endeavor was ultimately one intended to make the helper feel good about himself/herself. In contrast Karylowski said there was “exocentric altruism” where the concern is that the other receives help and it does not matter what the source of that help may be. This is a kind of altruism where the focus is on the other person. This perspective is helpful in pinpointing the type of altruism that the present study is investigating (exocentric altruism or genuine other-centeredness).

Because depression, as studied in this research, is related closely to a particular population, the literature review pertaining to depression will be presented in the section of the chapter on methodology which describes the population that the sample was drawn from.

CHAPTER THREE

Methodology

Research Design

Survey research was used in this study to determine the possible relationship between other-centeredness and depression.

Population

The population that the sample was drawn from consisted of Mormon women residing in Las Vegas, Nevada, and the Southern Utah cities of Hurricane, and St. George.

Sample

The hypothesis was tested using a sample of Mormon women. Most available information regarding depression in Mormon women available is of an anecdotal nature. The study of depression among women provides a good test of the hypothesis because the fact that women suffer from depression in significant numbers, about twice the rate found for men, has been demonstrated in many surveys and studies. However, data on the degree of depression extant among Mormon women specifically is scanty. In one of the few quantitative studies done on depressed Mormon women Bluhm, Spendlove, and West (1986) did a telephone survey of the Salt Lake City Metropolitan area in which they administered the Beck Depression Inventory to 143 LDS and 36 non-LDS married women. Results showed that 23.8 % of the LDS women

were classified as depressed. Kleinke (1982), in a survey of five geographically different LDS stakes, looked at Mormon women over the age of 25. Out of the 808 respondents 25.7% marked yes to the self-characterization, "Feeling Blue & Moody".

Is the incidence of depression greater among Mormon women than among women generally? There seems to be no clear answer to this question. In the quantitative study mentioned above, though LDS women were slightly more depressed than non-LDS women the difference was not significant. A common perception among therapists that treat Mormon women is that, though many of their complaints are similar to the non-Mormon population and the overall rate of depression is similar, many of their problems are unique.

There have been a number of possible reasons for depression in Mormon women addressed in the anecdotal literature. One of the most frequently expressed reasons concerns the guilt that follows from not living up to perfectionistic ideals. In 1979, KSL Television in Salt Lake City produced a one-hour documentary on depression in Mormon women in which they interviewed eleven people (some of whom were experts in the field and the others were those who had suffered or were suffering from depression). A recurring theme was that LDS women attempt to live up to extremely high expectations; so much so that it becomes impossible to succeed in every area. The result of not measuring up to cultural and self-imposed standards is guilt and the guilt leads

to depression (Degn, 1985). Though ideals should elevate one they can instead pull one down when failure to reach those ideals is experienced too often (Erickson, 1979). Women can be “haunted by a fear of imperfection,” (Thatcher, 1980).

Closely allied with guilt is the problem of overload. In the struggle to do so many things well women are often overcome by fatigue and stress (Degn, 1985). Added to the guilt of not achieving, and of wearing out in the attempt to achieve, women feel another type of guilt--that of not being happy. Girls are taught early that motherhood is fulfilling and when they find later that they are frustrated and unhappy instead, they feel they must be failing in some way (Christensen, 1990; Burgoyne and Burgoyne, 1978).

Another concern is one of identity or validation. Many depressed Mormon women complain that they somehow lose their identity when they become a wife and mother. Christensen (1990) found the women she worked with experienced a sense of alienation from the self as they subordinated their identity in the identities of their children and husband. Their validation as a worthwhile person now depended on the success of others. “Often hers are reflected victories.” (Smith, 1980). She takes responsibility for any deficiencies in her children or spouse because their successes are the measure of her success. She validates her worth by how her family turns out and feels guilt and despondency when the outcome is questionable (Nielsen, 1976).

Related to the validation concern is the dilemma of some LDS women who find themselves troubled by the fact that the role expectations of the Church are frequently much different from those of the culture they live in. Burgoyne and Burgoyne (1978) speak of binding paradoxes in a Mormon women's life. One paradox surrounds education, where girls and women are encouraged to become well educated, both by the Church and by society, and yet because of the emphasis on staying at home often do not get an opportunity to use the education.

The paradox surrounding civic and community involvement is similar-- encouraged yet curtailed. As role expectations change in the Western world and careers are increasingly a part of a woman's life, it is becoming more difficult to find validation in the homemaker's role. Some women find that role is neither challenging nor rewarding and as Smith (1980) describes the situation: "During childhood a young Mormon girl faces a paradox: She is supposed to acquire the proper gender identity and the standards of culturally held sex roles. And yet the characteristics that she is supposed to acquire are less valued by the culture in which she lives than are those of the opposite sex." (p. 60). Many of the writers on Mormon women's issues agree that the National women's movement is having an impact on the status of the homemaker's role generally, yet within Mormondom the homemaker's role remains supreme. The conflict between the two expectations results in role

STAY TO HAVE TO VALIDATE
 RAISING CHILDREN PROPERLY

confusion and frustration. However, in the findings of Spendlove, et al., (1984) the majority of LDS women (76%) reported that they preferred the homemaking role. This serves as a reminder that the problems that concern us in this study on depression are not necessarily those of the majority of LDS women, but certainly a significant minority--enough to begin questioning "why?".

The hypothesis that there will be a decrease in depression as other-centeredness increases should be demonstrable within this population. As a group the at-home mothers and wives appear to be continually thinking of others. They give up careers (with attendant paychecks) and their personal ambitions to stay at home and care for children and the needs of their husband. They serve neighbors, hold down positions in church, and often work in behalf of community efforts. This service to others should result in a lower incidence of depression. But does it? A question inherent in the study addresses how genuinely selfless are these actions. Is it possible that although the behaviors of these traditional wives and mothers are directed toward service to others, the reasons for the behaviors are in some degree selfish ones? Could it be that women seek for their own perfection by throwing themselves into the service of others. They may be seeking for validation by their sacrifices. If the predominant reason for service is to achieve personal goals, even if those goals are for improvement or perfection of oneself, the undertaking is basically a self-centered one.

The same could be said for women who are more concerned about completing a list of things to do than they are about the people in their lives. Though much is accomplished through criterion-driven motivation, and service is performed, the woman may still suffer from unhappiness because the services may have been done for the wrong reasons--perhaps to make herself look good or reduce guilt. Is it possible for a woman to be so concerned about her own identity that she loses sight of the people that she is serving? And will that cause depression?

To try to take into account such underlying motivations, as well as the more obvious indications of other-centeredness, an instrument was developed specifically for this research. It is called the Other-Centeredness Scale (O-C Scale), and its development is an integral part of the study. Its purpose is to measure how much a woman centers her life on other people as opposed to herself. It asks questions about feelings, thoughts and behaviors in a hierarchical format to determine actual priorities. A woman who scores high on the O-C Scale should suffer from less depression than a woman who scores low if the hypothesis is to be proved correct.

Delimitations

1. The study was delimited to an examination of depression and other-centeredness in women in the Church of Jesus Christ of Latter-day Saints who reside in the Las Vegas, Nevada area and the Hurricane, Utah and St.

George, Utah areas.

2. This study was further delimited to include only those women who are married and have at least one child at home under the age of 10 years old.

3. This study was also delimited to include only those women who are full-time homemakers and do not have employment outside the home.

Because the role of full-time homemaker by definition takes place within the home and is therefore somewhat shielded from outside influences it was not expected that the size of the city in which the women resides would make a difference in this study. Nevertheless, three different locations were chosen in order to control for those effects should they occur. Las Vegas, Nevada is a large, metropolitan area with a population of 258,295 persons (1990 U.S. census), St. George is a small city with a population of 28,502 (1990 U.S. census), and Hurricane is a small town with a population of 3915 (1990 U.S. census).

Additionally, whereas the citizens of Hurricane and St. George are predominantly members of the Church of Jesus Christ of Latter-day Saints (Mormons), members of the Mormon Church comprise a minority of the population in Las Vegas.

Only married women are a part of this study in order to control for commonly occurring depression related to such factors as divorce and widowhood.

In order to allow for other-centeredness to have an opportunity for expression this study will look at women who still have children in the home requiring a significant amount of care--children who are still of elementary school age or younger.

The Mormon Church has long counseled women to stay at home with their children whenever possible and not work outside the home. Because going against counsel may result in guilt and consequent depression women who are employed outside the home are not included in this research project.

Procedure

A listing of all Stakes of the Church of Jesus Christ of Latter-day Saints was obtained for Las Vegas, St. George and Hurricane. One Stake was randomly selected from the Las Vegas area, one from the Hurricane area and two from the St. George area. This resulted in each area returning approximately one third of the responses (34.95% for Hurricane, 34.43% for St. George, and 29.51% for Las Vegas). Each of the Stake Presidents from those four Stakes were contacted, the study explained, and permission received to allow the women in their respective Stakes to be participants in this research project. The Stake Relief Society Presidents were then contacted and asked to supply a list of all Ward Relief Society Presidents within their Stake boundaries; after which the Ward Relief Society Presidents were asked to forward a list of all unemployed, married women with at least one child under

the age of ten living within their Ward boundaries. The names thus obtained were those to which the survey materials were mailed. An alternative method chosen by a few Ward Relief Society Presidents was to give the materials directly to the Sisters in their Ward who met the criteria rather than releasing a list for mailing purposes. A total of 28 Wards participated in the study, with a total of 348 women receiving the survey materials. Of those, 183 women responded. The percentage return rate was 52.59%.

Instruments

The process of data collection consisted of administering two separate instruments to each person in the sample and scoring those quantitatively.

The instrument that was used to measure depression (the dependent variable) was the Beck Depression Inventory, which is a paper and pencil assessment consisting of 21 questions, and is designed to detect the presence of depression in the respondent and rate its severity (Burns, 1980). This instrument is the most widely used and accepted measure of depression and correlates well with other depressive measures. For example it correlates 0.70 with the MMPI Depression Scale (Becker, 1974). It is easy to administer and score. It has fared well in tests of both reliability and validity. In a sample of 598 patients in the psychiatric and outpatient services of the Philadelphia General Hospital and the Hospital of the University of Pennsylvania the split-half reliability was 0.93.

It was also found that each test item correlated significantly with the total test score (Beck and Beck, 1972). Concurrent validity is rated moderate to good (Pehm, 1976), and Beck and Beck (1972) found that with a sample of 606 patients there was a correlation of 0.72 between the BDI and clinicians' ratings of depression.

Because there did not exist a suitable instrument for measuring other-centeredness as conceived in this study, one was developed specifically for this purpose. The instrument is a paper and pencil scale with 16 multiple-choice type questions. See Appendix A for a copy of this other-centeredness measure (O-C Scale). Questions were developed to cover a broad range of possible demonstrations of other-centeredness and promote content validity; such as the allocation of time, resources, and allegiance. It examines the feelings, thoughts and actual behaviors of the individual. The respondent is asked to mark one of four possible answers to each question. Each of the four responses differs in the degree of other-centeredness. The least other-centered response was given 0 points, the next one was given 1 point, the 3rd was given 2 points and the greatest degree of other-centeredness, 3 points. The other-centeredness score consists of the total number of points the respondent receives.

The O-C Scale was administered to 157 General Psychology students at Brigham Young University. The distribution of the scores was approximately

normal. The ranked scores were divided into thirds and a oneway ANOVA on the three groups was run to determine if there were significant differences between the means of the groups. This preliminary test was conducted in order to determine if the other-centeredness scale was able to differentiate between high and low scorers before being administered to the sample. The ANOVA did show significance. Also, the questions used in the scale were examined and a frequency distribution created for each question. Four of the original 20 questions were discarded because of poor differentiation and on some of the 16 remaining questions the wording and order of the statements were changed to provide greater clarity and differentiation. Scoring was changed from a 4 point scale to a 3 point scale for ease of adding the final score. The numbers indicating each statement were changed to letters to eliminate confusion for the respondent as well as the scorer.

As a test of the validity of the O-C scale a comparison was performed using the already-developed Social Interest Scale (SIS). This scale is used to measure the subject's general concern for the welfare of others. Though the SIS does not measure the concept of other-centeredness as conceived in this study, there should be some correlation between the two measures. A copy of the SIS is found in Appendix B. It consists of a self-report measure that requires the individual to make a number of choices concerning which of two traits he considers to be most important. It has the advantage of being short

with only 24 pairs of traits, 15 of which are scored and 9 are buffer items. The respondent underlines which of the two traits in each set he values more highly. Split-half reliability was 0.77; test-retest reliability was 0.82; and peer ratings that validated the measure were highly significant (Crandall, 1975). The SIS scale was further validated by being administered to such diverse groups as Ursuline sisters, criminals, professional models, etc. The expected scores for such groups were obtained. Correlation studies were conducted comparing empathy measures, hostility measures, and values measures, with the SIS. The results were confirming of the measure (Crandall, 1980).

With the permission of the author, James E. Crandall, the SIS was given to 53 Brigham Young University General Psychology students, along with the revised O-C scale. A Pearson r correlation of 0.375 was found between the two scales. This was interpreted to mean that the OC Scale and the SIS are measuring similar constructs to some extent, but are not interchangeable. The performance of the revised O-C scale was reviewed and a few minor changes made before administration to the research sample population.

In order to perform a test-retest reliability measure the O-C Scale was given twice to an all-female home economics class at BYU. There was a .941 Pearson r correlation between the scores of the 17 subjects.

Measures of internal consistency were performed on those questionnaires containing no missing values (163). The Cronbach Alpha

coefficient was .5737, and the Spearman-Brown split-half procedure yielded .6545. See Appendix C for additional information on reliability.

Data Gathering Procedure

Each woman who met the criteria outlined and whose name appeared on one of the Ward Relief Society lists was mailed a copy of each of the questionnaires along with a cover letter explaining the general purposes of the study, the assurance of confidentiality, and the volunteer nature of any response. A copy of the cover letter is in Appendix D. Also included was a short, nine-item, questionnaire asking for demographic-type information. This information was gathered for the purpose of seeing to what extent other factors may be contributing to depression in the sample and if there are any interactions between those factors and other-centeredness. These control variables include: age, education, number of children, present state of health, church attendance, family income, relationship with husband, location, and present clinical care for depression. See a copy of the questionnaire in Appendix B on the bottom portion of the O-C Scale. A stamped, self-addressed envelope was included with the other materials for ease of return posting. All lists were destroyed after the names were used for mailing purposes. Upon receipt of the returned responses the questionnaires were scored and the control variables coded for analysis.

Analysis

The data collected were treated as interval data. The dependent variable consists of the scores on the Beck Depression Inventory. The respondents were divided up into three groups according to their scores on the other-centeredness scale: the third with the lowest scores of other-centeredness, the third with the highest scores of other-centeredness, and the intermediate third between the two extremes. These three groups or levels of other-centeredness became the independent variable and an ANOVA was conducted to check for any differences between the means of these groups. According to the stated hypothesis we should be able to reject the null hypothesis which assumes that there is no significant difference between the groups at the .05 level. A confirmed hypothesis would demonstrate that persons at the lowest level of other-centeredness would experience a significantly greater amount of depression than the highest level of other-centeredness.

ANOVA and Regression analyses were performed on all control variables to determine which, if any, were significant in predicting depression. A correlation between the BDIS and the O-C scale was also performed to see if there was an inverse relationship as expected and correlations were performed on all control variables paired with depression. ANOVA and Regression analyses were performed on all control variables to determine if any were

significant in predicting other-centeredness to aid in the interpretation of the control variables. Partial correlations were completed to control for any variables that were significant in predicting depression. A stepwise Multiple Regression was performed on the entire model, as well as a Tests procedure, to help in interpreting the impact of the control variables. Frequency counts and percentages were used as descriptive statistics.

CHAPTER FOUR

Results

Hypothesis

The hypothesis that a higher rate of other-centeredness will be associated with a lower rate of depression is confirmed. An ANOVA analysis found that there is a significant difference in one or more of the means of the three other-centeredness groups with a p of .009. A follow-up Scheffe procedure revealed that it is the means of group 1 (the highest third) and group 3 (the lowest third) that are significantly different from one another. This was the expected result and allows us to reject the null hypothesis which assumed that there would be no difference between the groups.

A correlation was performed, pairing all depression scores ($N=183$) with their companion other-centeredness scores, in order to see if there results a negative correlation as expected. This was also confirmed. The Pearson r correlation was -0.269 , demonstrating that high scores on the other-centeredness scale were associated with low scores on the depression scale. The correlation was significant at the .01 level.

Control Variables

To see what control factors were important in this study an ANOVA and Regression was performed on each one, as was a correlation between the

factor and the depression score.

It was found that the amount of education the woman had is significantly related at the 0.001 level to depression, with 5% of the variance accounted for. Education correlated -0.302 with the BDIS, demonstrating that as the level of education increased depression decreased. Table 1 summarizes the responses to the education control variable.

Table 1. Education Level of Respondent.

Level of Education	Frequency	Percent of the total
Less than High School	2	1.09
High School Graduation	48	26.23
1-2 Years of College	79	43.17
3-4 Years of College	48	26.23
More than 4 Years of College	6	3.28
Totals	183	100.00

The age of the respondent was not related to depression. The correlation of 0.029 was nonsignificant with a p of 0.965. The age of the respondents is summarized in Table 2.

Table 2. Age of respondent

Years	Frequency	Percent of Total
Under 25	28	15.30
25-34	81	44.26
35-44	62	33.88
45-54	10	5.46
55 and over	1	.55
Nonresponses	1	.55
Totals	183	100.00

The correlation between the BDIS scores and the number of children was small at 0.066. This correlation was also not significant with a p of 0.238. We get very little predictive help in forecasting depression if we know how many children a woman has. Table 3 presents the data on number of children.

Table 3. Number of children of the respondent.

Number of Children	Frequency	Percent of Total
1-3	88	48.09
4-6	79	43.17
7-9	14	7.65
10 or more	2	1.09
Totals	183	100.00

The present self-reported state of health turned out to be a significant predictor with a p of 0.000. The correlation between the individual's health and the BDIS was -0.408 showing that poorer health is associated with depression.

We can account for 16.6% of the variance if we know a woman's health. Table 4 summarizes the data on health.

Table 4. Present health of respondent.

State of Health	Frequency	Percent of Total
Excellent	80	43.71
Good	85	46.45
Fair	18	9.84
Poor	0	0.00
Totals	183	100.00

The correlation between the BDIS and church attendance was 0.17. Though church attendance turned out to be a significant predictor with a p of -0.021 , the actual percent of variance accounted for was small (2.89%). As is evident from Table 5 below, most respondents in the sample were high church attenders. Because the data do not approximate a normal distribution this variable is likely not a good discriminator for determining a relationship with depression.

Table 5. Church attendance of respondents.

Church Attendance	Frequency	Percent of Total
Weekly	167	91.26
2 to 3 times per month	9	4.92
Once a month	1	.55
Less than once a month, but at least once a year	4	2.18
Very seldom or never	2	1.09
Totals	183	100.00

Income turned out to be a significant predictor with a correlation between income and the scores on the BDIS of -0.304 ($p=0.000$). We can account for 9.2% of the variance if we know the level of income. Table 6 summarizes the data on income.

Table 6. Annual income of respondents.

Annual Family Income in Dollars	Frequency	Percent of Total
Under 15,000	11	6.01
Between 15,000 and 25,000	39	21.31
Between 25,000 and 35,000	62	33.88
Between 35,000 and 45,000	36	19.67
Between 45,000 and 75,000	21	11.48
Over 75,000	9	4.92
Nonresponses	5	2.73
Totals	183	100.00

The control factor having the highest relationship with depression was the woman's relationship with her husband. The correlation between this factor and the BDIS is -0.411 and shows that a poorer relationship with the

husband is associated with higher depression scores. We can account for 16.9% of the variance if we know the woman's relationship with her husband.

Table 7. Respondent's relationship with husband.

Relationship	Frequency	Percent of Total
Excellent	91	49.73
Good	75	40.98
Fair	16	8.74
Poor	0	0.00
Nonresponses	1	.55
Totals	183	100.00

The last control variable is location. The correlation was -0.170 with a p of 0.022 showing that the size of the city is related to depression, but not very strongly. We can account for only 2.89% of the variance by knowing the size of the city in which the woman resides. Table 8 demonstrates that there was an approximately even number of responses between the three locations.

Table 8. Location of respondents.

Location	Frequency	Percent of Total
Hurricane	64	34.97
St. George	63	34.43
Las Vegas	54	29.51
Nonresponses	2	1.09
Totals	183	100.00

A stepwise multiple regression procedure was performed to see how all control variables that were significantly correlated with depression, as well as the independent variable of other-centeredness, improved the variance accounted for as they were added into the regression equation.

The relationship with the husband being the factor with the highest R square was added into the equation first, with an adjusted R square of .16947.

In the second step health was added to the equation and improved the R square by .092331 giving a new adjusted R square of .26178.

The third step added in the control variable of income, increasing the variance accounted for by .05479 and giving a new adjusted R square of .31657.

The independent variable, other-centeredness, was added to the equation in step four. That increased the adjusted R square to .38143 by adding .06486 to the variance accounted for. Though other-centeredness did not enter into the equation until step 4 it is important to note that it still adds a significant degree of predictability.

The last factor to be added to the equation was the number of children a woman has. This addition made very little difference and only improved the adjusted R square by adding .01072, bringing the total variance accounted for to .39215.

It is apparent that the significant control variables (except for the

number of children a woman has) and the independent variable of other-centeredness each make meaningful additions to the variance accounted for. The best stepwise combination included the relationship with the husband, health, income, and other-centeredness--accounting for .38143 of the variance. Nevertheless, because the other control variables of age, church attendance, and location did not significantly add to the R square, there remains a considerable amount of variance for which we are still unable to account using the data gathered in the present study.

Partial correlations were performed in order to control for the variables that had tested significant and thereby get a more accurate reading of the correlation between the depression scores and the other-centeredness scores. If no confounding variables are controlled the correlation, as mentioned above, is -0.269, making us 7.23% more accurate in predicting a depression score if we know an other-centeredness score.

Four factors increased our predictability for other-centeredness when they were controlled: health, income, education and number of children. When controlling for health the correlation between the BDIS and the OC-Scale increased to -0.321, making us 10.31% more accurate when predicting depression. When controlling for income the correlation between the BDIS and the OC-Scale increased to -0.325, making us 10.56% more accurate in our predictions. For the level of education factor and the number of children factor

the predictability for other-centeredness increased only slightly over the other-centeredness figure of -0.269 when they were controlled (-0.284 and -0.274, respectively). Controlling for the women's relationship with her husband actually reduced predictability to 4.67% with a correlation between the depression scale and the other-centeredness scale of -0.216.

Overall the first order partials demonstrate that the highest relationship between other-centeredness and depression is achieved by partialing out income and health. However, the fact that the relationship with the husband lowers the linkage between other-centeredness and depression seems to be a clear indicator that there is some overlap between other-centeredness and the relationship with the husband.

Two, three, four and five order partial correlations were also performed using the factors that show a significant relationship to depression scores. The second order correlations are shown in Table 9 .

Table 9. Second order partial correlations showing the correlation between other-centeredness and depression when two significant factors are controlled.

	Education	Children	Health	Income	Rel w Husband
Education	-----	-.2822	-.3258	-.3310	-.2257
Children		-----	-.3196	-.3252	-.2119
Health			-----	-.3675	-.2681
Income				-----	-.2674
Rel w Husb					-----

As can be seen from the table, all combinations of two order partial correlations when controlled improve the predictability of other-centeredness except for any combination in which the relationship with the husband is one of the factors. The highest 2nd order partial correlation is achieved by controlling for health and income.

The third order partial correlations are summarized in Table 10. All third order partial correlations improve the predictability of other-centeredness when controlled except for three combinations: (1) Education, Number of Children and Relationship with Husband; (2) Health, Number of Children, and Relationship with Husband; and, (3) Income, Number of Children, and Relationship with Husband. It appears that the relationship with the husband factor, which decreased the predictability of other-centeredness in the second order partial correlations, again plays a role in third order correlations. When it is in combination with the factor of how many children a woman has (which is a weaker factor in accounting for variance than is education, health or income), it does not improve the predictability of other-centeredness when it is controlled.

Income and health seem to be masking the relationship between other-centeredness and depression to some extent and the relationship with the husband is confounded to some degree with other-centeredness.

Table 10. Third order correlations showing the correlation between other-centeredness and depression when three significant factors are controlled

Factor Combinations	Correlation
Education, Health, Number of Children	-.3242
Education, Health, Income	-.3706
Education, Income, Number of Children	-.3308
Education, Income, Relationship with Husband	-.2747
Education, No. of Children, Relationship with Husband	-.2215
Education, Health, Relationship with Husband	-.2741
Health, Income, Number of Children	-.3672
Health, Income, Relationship with Husband	-.3165
Health, Number of Children, Relationship with Husband	-.2643
Income, Number of Children, Relationship with Husband	-.2657

In fourth and fifth order correlations all combinations improved the predictability of other-centeredness when controlled, but none of them improved upon the third order correlation of controlling health, income and education (-.3706).

Because of the overlap between the relationship with husband and other-centeredness it seemed likely that other-centeredness would also predict the relationship with the husband as well as predicting depression. Some direct evidence can be given for such confounding. When correlations were run using other-centeredness scores as the dependent variable, instead of depression scores, all control variables were not significant except between the relationship with the husband and other-centeredness. The r was $-.187$, and the R square was low (.03) but significant (.011). Though causal direction can not be

determined from correlational data, if other-centeredness were found to be a causal factor then low other-centeredness scores would perhaps predict a poor relationship with the husband as well as predicting depression.

An additional perspective can be taken when the frequency distributions of the data are examined. All 183 respondents were ranked according to their scores on the other-centeredness measure and then were divided into approximately three equal groups (those receiving the same score were kept together). Though this test was redundant with ANOVA it was performed primarily to ascertain whether low, middle and high other-centeredness scores are associated with clinical depression. Table 11 shows a Chi Square distribution.

Table 11. Chi Square distribution of the three other-centeredness groups.

Level of depression	Lowest third of O-C Scores	Middle third of O-C Scores	Highest third of O-C Scores	Row Totals
No depression BDIS scores 0-15	n=37	n=63	n=56	156
Expected frequency	42.62	63.08	50.30	
Moderate to Severe BDIS scores 16-63	n=13	n=11	n=3	27
Expected frequency	9.38	10.92	8.70	
Column Totals	50.00	74.00	59.00	183

The columns are the three ranked other-centeredness groups and the

rows depict those women who demonstrated either no depression on the Beck Depression Inventory (Row 1) or those who measured some amount of depression (Row 2). The Beck Depression Inventory scoring guidelines differentiate between a clinical and a nonclinical population. In a clinical population scores between 0-9 are considered to indicate no depression. However, in a nonclinical population those with a score on the Beck Depression Inventory of 15 or less are not considered to be depressed. Because the data in the sample showed only 6 out of 183 women receiving treatment for depression, the sample could be categorized as being nonclinical.

In the lowest third of O-C scores 13 out of 50 women suffered from clinical depression (26%); in the middle third 11 out of 74 women suffered from clinical depression (14.87%); and in the highest third of O-C scores the percentage of women suffering from clinical depression dropped to 5.09% or 3 out of 59 women in that category. As mentioned the two-way Chi Square gave us further confirmation that we are looking at different populations. The Chi-Square (9.414) was significant at the .01 level. We can be confident that the sample used in this research represents frequencies for depression and other-centeredness that are dependent in the population. We reject the null hypothesis that assumes that these two variables are independent or unrelated.

When we analyze the range of the other-centeredness scores the

frequencies become even more compelling. The range in other-centeredness scores went from a low of 19 to a high of 46. If we divide the range of scores into equal groups we are able to assess how women who scored in the lowest third of the range of scores differ from those who scored in the middle third and the highest third.

Table 12. Frequency of level of depression between low, medium and high scores of other-centeredness and the percent of each cell frequency

O-C Score	Low OC 19-27	Med O-C 28-37	Hi O-C 38-46	Row Totals
No depression Scores 0-9 Percent	n=16 50.00%	n=85 64.39%	n=17 89.47%	n=118
Mild depression Scores 10-15 Percent	n=7 21.88%	n=29 21.97%	n=2 10.53%	n=38
Mod dep. Scores 16-19 Percent	n=3 09.38%	n=4 03.03%	n=0 00.0%	n=7
Mod to Severe dep. Scores 20-29 Percent	n=4 12.50%	n=14 10.60%	n=0 00.0%	n=18
Severe depression Scores 30-63 Percent	n=2 06.25%	n=0 0.0%	n=0 00.0%	n=2
Column Totals	n=32 100.0%	n=132 100.0%	n=19 100.0%	N=183

We see that of all women who scored above an other-centeredness score of 27 (those 151 women in the middle and high ranges) only 18, or 11.92% were depressed, according to the nonclinical definition of depression which requires a score of 16 or over. And most impressive of all is this statistic: no one with an other-centeredness score over 37 (the 19 women in the high range) was clinically depressed (0%). These figures are contrasted by the percentage of women suffering from clinical depression in the lowest third of the range of other-centeredness scores (28.23%).

The O-C Scale demonstrated an approximately normal distribution when given to the research sample as portrayed in the histogram in Table 13.

Table 13. Histogram of Other-Centeredness Scale.

Midpoint	Frequency	Distribution
20	2	**
22	5	*****
24	5	*****
26	12	*****
28	16	*****
30	25	*****
32	34	*****
34	25	*****
36	34	*****
38	15	*****
40	4	****
42	4	****
44	1	*
46	1	*

There was a possible high of 48 on the O-C Scale. The mean was 31.929; the median was 32.000; the true mean was 31.976; and the standard deviation was 4.706.

CHAPTER FIVE

Discussion

Clearly there appears to be a genuine relationship existing between how other-centered a woman is and how depressed she feels. A 7.24% increase in accuracy of prediction is substantial for an initial study of a new construct, especially considering the powerful factors which already account for a significant amount of variance. That other-centeredness can still be predictive of depression when those factors are controlled is worthy of note.

In examining the control variables it becomes evident that three significant factors play a part in determining the context within which a woman lives. These contextual factors have more to do with the situational conditions the woman is in rather than her personal characteristics or her interpersonal relationships. The three variables that help create her individual environment are health, education and income. It should be noted that the health factor was a self-report measure and is more likely to be related to self-reported depression than an objective measure of health would have been.

In the analysis performed on the data these three variables stood independent of other-centeredness. They appear to be environmental stressors that possess different characteristics than we associate with other-centeredness. When these three variables are held constant the predictability of other-centeredness becomes substantially stronger. Of all the partial

correlations the strongest outcome was the third order partial correlation using the variables education, health and income. When those three variables were controlled the predictability of other-centeredness increased from an R square of .0724 to .1373, for a difference of .0649.

In spite of sizeable portions of the variance being accounted for by these environmentally-related variables (which one would assume would have a bearing on depression) there is still a significant portion of the variance that can be accounted for by other-centeredness.

In contrast, it seems that other-centeredness and relationship with the husband are measuring the same thing to some degree and do not stand independent from one another as health, education and income stand independent from other-centeredness. There is an overlap in the way that depression is related to other-centeredness and to the relationship with the husband. While the overlap is not large it is that which causes the reduction in variance accounted for when the relationship with the husband is parcelled out.

The relationship with the husband is the strongest predictor of depression. When examining the stepwise multiple regression procedure we see that the addition of education, health and income to the equation only improves the variance accountability by .17444 due to the fact that the first variable to be entered into the equation, the relationship of the husband, had already accounted for .16947 of the variance. However, as mentioned, it does

not stand as clearly independent of other-centeredness as do the three environmentally-related variables. The Pearson r correlation between the relationship with the husband and the Beck Depression Inventory was 0.411, the highest of all correlations; when the relationship with the husband was controlled in partial correlation it reduced the correlation between other-centeredness and depression to -0.216 and reduced the R square from .164 to .047. The relationship-with-husband factor was the only one in the second order partial correlations that reduced other-centeredness ability to predict.

It may well be that those women who have a poor relationship with their husband may have a difficult time being other-centered. Or perhaps, those who are other-centered are better able to nurture a positive relationship with their husband. Further research is necessary to see in what way these two factors are confounded.

As the Chi-Square and frequency data demonstrate, scores on the other-centeredness scale had to be quite high before differences between the groups were pronounced. It is possible that the kind of fundamental other-centeredness being measured in this research does not manifest itself unless most questions on the OC scale are answered at their highest level of other-centeredness. If a woman is consistently other-centered in her answers, then depression is not present, nor is a poor relationship with her husband.

Though it appears that when the other-centeredness score is high

enough depression is absent, it must be noted that we cannot assume a causal explanation for this finding. From the correlational data in this study it is as equally likely that those with low depression scores are more disposed to be other-centered as it is for those who are highly other-centered to be less inclined to suffer from depression.

In order to examine the causal direction of the relationship other research designs are imperative. It may be especially useful to use a new approach in pursuing this goal, such as qualitative research, where both the depressed and the non depressed are asked to describe in their own words the feelings they have relating to their views of service and concern for others. In addition to gaining information as to whether individuals are not other-centered because they are depressed or whether being other-centered really does reduce depression, we may gain further knowledge of the strength of the relationship as we examine the control variables that may be confounding the results, by explaining those factors within their real life context.

We may well ask whether continued research along these lines matters. This study has confirmed that a significant minority of women suffer from some degree of depression and therefore any promising line of research that may help to uncover possible causes should be pursued. Research that examines any connection between depression and other-centeredness is warranted and could be carried out using many different populations. Looking at the data

from the present research it is still a real possibility that women who forget themselves, even forget the pursuit of their own perfection, identity and validity, in an effort to take care of and meet the needs of others, are less depressed. When we consider that the 19 women who scored the highest on the other-centeredness scale suffered no depression we must take note. A recommendation that further research be conducted to determine both the strength and the direction of the relationship between other-centeredness and depression seems a valid one.

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APPENDIX A

Other-Centeredness Scale

O-C SCALE - This questionnaire consists of 16 questions with each question having four possible responses. Please circle the letter (a, b, c, or d) next to the one response that best describes the way you feel.

1. How do you usually feel about the demands other people place on you?
 - a. they are often unreasonable and I resent it
 - b. I look upon them as needs I can help fulfill
 - c. they are usually fair and I try to meet them
 - d. they cause me little concern
2. What attitude do you think children should be taught regarding chores around the home?
 - a. each member should decide which chores he will do according to his personal needs
 - b. chores should be divided equally so each family member carries their own load
 - c. each person should do as much as they can to help
 - d. upon request family members should willingly do extra chores
3. Supposing you had to choose between the following activities. Which would you likely attend?
 - a. a home improvement seminar
 - b. your son's wrestling meet
 - c. a sidewalk sale at the mall
 - d. a movie
4. You have some extra money that is not specifically for daily expenses. Which one of the alternative options might you choose in order to spend it?
 - a. get something the family would like
 - b. buy something fun for yourself
 - c. help a friend who has a need for financial assistance
 - d. enroll in some college classes you have always wanted to take
5. When asked to perform a service in the neighborhood do you find it
 - a. one more thing to worry about
 - b. depends on how genuine the need is
 - c. is all right if you have the time
 - d. a welcome opportunity
6. Where do you find your greatest fulfillment?
 - a. in accomplishments and recognition
 - b. working on my own perfection
 - c. having an exemplary family
 - d. making someone else's life better
7. Why would it be important to you to take care of your physical health?
 - a. to avoid the expense and burden of care that goes with illness
 - b. to have plenty of energy to get things done
 - c. to be more effective for those I care about
 - d. to be free of pain and disease
8. How do you feel when you are trying to finish a task and you are interrupted by someone needing something from you?
 - a. I am not bothered because I like to help out where I can
 - b. I feel hassled and impatient
 - c. it depends on whether the reason for the interruption was a good one
 - d. it depends on how important the task is that I am working on
9. Do you agree with the statement that our first duty is to ourselves?
 - a. yes
 - b. most of the time
 - c. it depends on the situation and whose need is greater
 - d. I disagree, our first duty is to others
10. If you were spending most of your time taking care of others would you resent it?
 - a. yes, that would be very unfair
 - b. it depends on what I was giving up
 - c. it depends on how genuine was the other person's need
 - d. no, I would like to be able to serve
11. In relationships with others are you cooperative?
 - a. yes
 - b. I am cooperative unless there is something at stake of real importance to me
 - c. I feel we have to watch out for ourselves
 - d. I am cooperative if others are trying to be cooperative as well
12. If you were reading a bedtime story to a child how would you find the experience?
 - a. often time-consuming, keeping me from other duties
 - b. a pleasure
 - c. frequently boring
 - d. the mark of a good parent
13. What would be your reaction to the requirements placed on a mother of a large family?
 - a. there is too much work and money required
 - b. I have some reservations, but it is ok
 - c. I think it would be a joy to fulfill those requirements
 - d. there would be too little time for my own identity and needs to be fulfilled

14. When you have gone out of your way for a member of the family what do you expect?
- nothing
 - they will try to do something for someone else when they can
 - they will be appreciative
 - they will return the favor when you need one

15. How often do you expect something in return for doing something for another?
- I expect the rewards to outweigh the costs
 - I usually think I will get something in return
 - I do not really think of expecting something
 - I expect something occasionally in order to make the effort worthwhile

16. In planning your day what is your main focus?
- making sure everything gets done and I complete my list
 - making certain other's needs are met
 - seeing that I get to do what I want to that day
 - striking a balance between my needs and the needs of others

-
1. Circle the highest grade in school you have completed:

Elementary
0 1 2 3 4 5 6 7 8
High School
9 10 11 12
College
13 14 15 16 17 18 more

2. Age:

- Under 25
- 25-34
- 35-44
- 45-54
- 55 or over

3. How many children are currently living at home? (include all children who's primary care you are responsible for under age 21)

1. one	6. six
2. two	7. seven
3. three	8. eight
4. four	9. nine
5. five	10. ten or more

4. What is the state of your health at this time?

- excellent
- good
- fair
- poor

5. Are you presently under a physician's or clinician's care for depression?

yes no

6. How often do you attend church?

- weekly
- 2 to 3 times per month
- once a month
- less than once a month but at least once a year
- very seldom or never

7. What is your total family income each year?

- under \$15,000
- between \$15,000 and \$25,000
- between \$25,000 and \$35,000
- between \$35,000 and \$45,000
- between \$45,000 and \$75,000
- over \$75,000

8. How do you see your relationship with your husband?

- excellent
- good
- fair
- poor

9. What is the town or city in which you currently reside?
-

APPENDIX B

Social Interest Scale

SOCIAL INTEREST SCALE

Below are a number of pairs of personal characteristics or traits. For each pair, underline the trait which you value more highly. In making each choice, ask yourself which of the traits in that pair you would rather possess as one of your own characteristics. For example, the first pair is "imaginative-rational." If you had to make a choice, which would you rather be? Draw a line under your choice in each of the pairs.

Some of the traits will appear twice, but always in combination with a different other trait. No pairs will be repeated.

"I would rather be"

imaginative - rational

helpful - quick witted

neat - sympathetic

level-headed - efficient

intelligent - considerate

self-reliant - ambitious

respectful - original

creative - sensible

generous - individualistic

responsible - original

capable - tolerant

trustworthy - wise

neat - logical

forgiving - gentle

efficient - respectful

practical - self-confident

capable - independent

alert - cooperative

imaginative - helpful

realistic - moral

considerate - wise

sympathetic - individualistic

ambitious - patient

reasonable - quick-witted

*The underlined words are those indicative of social interest and are the ones that would be scored. The pairs with no traits underlined are the buffers.

APPENDIX C

Reliability Data on Other-Centeredness Scale

Reliability Data on Other-Centeredness Scale

Cronbach Alpha = 0.5737

N=163

Item-Total Statistics

	Scale Mean if Item Deleted	Alpha if Item Deleted
Question 1	30.2945	.5633
Question 2	29.7730	.5971
Question 3	29.0859	.5680
Question 4	30.1595	.5633
Question 5	30.2393	.5339
Question 6	29.9018	.5516
Question 7	30.0368	.5557
Question 8	30.5521	.5665
Question 9	29.9693	.5725
Question 10	29.7546	.5231
Question 11	29.6810	.5670
Question 12	29.3374	.5446
Question 13	29.6810	.5213
Question 14	30.6380	.5499
Question 15	29.2331	.5722
Question 16	30.1902	.5641

Split-Half Reliability Coefficients

N=163

Spearman-Brown = .6545

Guttman = .6519

APPENDIX D

Cover Letter

DEPARTMENT OF PSYCHOLOGY
BRIGHAM YOUNG UNIVERSITY
1001 SWKT
PO BOX 55543
PROVO, UTAH 84602-5543
501 378-1257 FAX 501 378-7302



August 1, 1993

Dear Sister:

As part of a preliminary study considering the needs of women in our society I am doing a research project in pursuit of a graduate degree at Brigham Young University. With the permission of your Stake President I am contacting some of women in your Stake to request their help in filling out the enclosed questionnaires.

The data gathered should help to paint a picture of the way women lead their lives. The insight gained from such a study will hopefully lead to future research and a better understanding of the challenges facing women in our modern culture. I believe this is a vital topic that deserves to be researched scientifically. Because each response is important in a study of this kind I would appreciate it if you would take time out of your busy schedule to fill out these questionnaires and return them to me in the stamped, self-addressed envelope provided.

I would like you to be aware that participation in this project is entirely voluntary and I would not like to offend your sense of privacy. However, do know that your confidentiality will not be violated. No names will ever be asked for or used. Therefore completed questionnaires can not be traceable to any individuals, and all responses will be used only as aggregate data. Because confidentiality makes the signing of a consent form impossible your mailing back of the materials implies your consent to participate in the study.

There may appear to be a "right" answer to some of the questions. Nevertheless, I ask that you mark the answer that best describes yourself. This study is not to be a confirmation of the ideal mother, but to investigate the real struggles and feelings of our sisters. Only honest answers can give us the information needed to find genuine solutions. Please be as frank as possible. It would be extremely helpful if the questionnaires could be return to me by August 15.

As this may be my only opportunity to do so, may I thank you ahead of time for any contribution of time and effort you may make to the successful completion of this research.

Sincerely,

A handwritten signature in cursive script that reads "Janice G. Nielson".

Janice G. Nielson
Graduate Student

A handwritten signature in cursive script that reads "Kay Smith".

Dr. Kay Smith
Chairman, Graduate Committee

Other-Centeredness and Depression
in a Sample of Mormon Women

Janice G. Nielson

Department of Psychology

M.S. Degree, August 1994

ABSTRACT


Other-centeredness and depression were examined to see if a relationship existed between the two. One scale measuring other-centeredness and another measuring depression were given to a sample of married Mormon women who did not work outside the home. Other-centeredness and depression were significantly negatively correlated. The women scoring in the top one-third of the range of other-centeredness scores suffered no depression on the depression scale. The factor most predictive for depression was the relationship the women had with her husband, and other-centeredness was found to overlap with this variable to some extent. The factors of health, income, and education were also better predictors of depression than other-centeredness. When they are held constant the relationship between other-centeredness and depression increases substantially.



Kay H. Smith, Committee Chair



Larry Jensen, Committee Member



David V. Stimpson, Department Chair