



2004-11-23

# Marital Satisfaction and Depression in a Study of Brazilian Women: A Cross-Cultural Test of the Marital Discord Model of Depression

Cody S. Hollist

*Brigham Young University - Provo*

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

 Part of the [Family, Life Course, and Society Commons](#)

---

## BYU ScholarsArchive Citation

Hollist, Cody S., "Marital Satisfaction and Depression in a Study of Brazilian Women: A Cross-Cultural Test of the Marital Discord Model of Depression" (2004). *All Theses and Dissertations*. 204.

<http://scholarsarchive.byu.edu/etd/204>

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

MARITAL SATISFACTION AND DEPRESSION  
IN A STUDY OF BRAZILIAN WOMEN: A CROSS-CULTURAL TEST OF THE  
MARITAL DISCORD MODEL OF DEPRESSION

by

Cody Stonewall Hollist

A dissertation submitted to the faculty of

Brigham Young University

In partial fulfillment of the requirements for the degree of

Doctor of Philosophy

Department of Marriage and Family Therapy

Brigham Young University

August 2004

## BRIGHAM YOUNG UNIVERSITY

## GRADUATE COMMITTEE APPROVAL

Of a dissertation submitted by

Cody Stonewall Hollist

This dissertation has been read by each member of the following graduate committee and by majority vote has been found to be satisfactory.

---

Date

---

Richard B. Miller, Chair

---

Date

---

Robert F. Stahmann

---

Date

---

Leslie L. Feinauer

---

Date

---

James M. Harper

---

Date

---

Patrick R. Stephen

## BRIGHAM YOUNG UNIVERSITY

As chair of the candidate's graduate committee, I have read the dissertation of Cody Stonewall Hollist in its final form and have found that (1) its format, citations, and bibliographical style are consistent and acceptable and fulfill university and department style requirements; (2) its illustrative materials including figures, tables, and charts are in place; and (3) the final manuscript is satisfactory to the graduate committee and is ready for submission to the university library.

---

Date

---

Richard B. Miller  
Chair, Graduate Committee

Accepted for the Department

---

Robert F. Stahmann  
Department Chair

Accepted for the College

---

James M. Harper  
Dean, College of Human Resources  
Family Sciences

## ABSTRACT

MARITAL SATISFACTION AND DEPRESSION  
IN A STUDY OF BRAZILIAN WOMEN: A CROSS-CULTURAL TEST OF THE  
MARITAL DISCORD MODEL OF DEPRESSION

Cody Stonewall Hollist

Department of Marriage and Family Therapy

Doctor of Philosophy

Depression is a major societal health problem with individual, familial, social, and economic costs. Cross sectional research has linked depression and marital discord, with women frequently having a higher association between variables. Several longitudinal research studies have linked marital satisfaction to subsequent depression. The Marital Discord Model of Depression states that marital discord is an important antecedent in the development of depression. While some empirical evidence exists supporting this premise, no research has been done with Latinos. The purpose of this study was to test the longitudinal relationship between marital satisfaction and depression among Latina women.

The data was conducted in two waves, 2 years apart, from a Brazilian sample of

99 females. The data were analyzed using Structural Equation Modeling (SEM) procedures. The results indicated that there was a strong association between marital satisfaction and depression. Marital satisfaction at time-1 was a significant predictor of, not only time-1 depression, but also time-2 depression. Marital satisfaction and depression at time-1 predicted 59% of the time-2 depression scores. These results provide evidence that the Marital Discord Model of Depression is an appropriate theoretical model for the conceptualization of marital discord and depression with Latina women.

With previous research already having established the effectiveness of Behavioral Marital Therapy of Depression (BMT-D) for treating depression among Caucasian couples, these results suggest that BMT-D might also be an appropriate treatment for depression among Latinos. Further BMT-D effectiveness research needs to be done to test the utility of interventions with the Latino population. Further research also needs to be done to test the longitudinal association of marital distress and depression among Latinos living in the United States.

## ACKNOWLEDGMENTS

Unfortunately, it was not possible to include Dr. Olga Falceto as an official member of my committee. However, I want to acknowledge her efforts during the entire research process. Her contributions were invaluable and her influence on the outcome equal to that of any member of the committee. An honorary recognition goes to her as a silent member of the committee.

I would like to acknowledge the people who have sacrificed most in the process of dissertation and Ph.D.: my family. They were willing to make the year-long trip to Brazil, an unknown land and a life full of hardships, challenges, and joys. Thank you my beloved wife and daughters.

A special thanks goes also to the Brazilian research group, especially Nilsa and Claudia. Thank you. *Amizade nunca sai do coração.*

I would also like to acknowledge my committee for their efforts in the reviewing process. Each has contributed in an individual way that has enhanced my experience and the outcome. Most of all, I would like to thank Rick Miller who has been a great example, mentor, and friend. Thank you for the trips to Brazil and the personal investment in one more project. Thanks, Rick!

I would like to dedicate this dissertation to my late Grandfather, Stonewall McGuire. He taught me to look past ethnicity and nationality into the soul to find worth,

that appearances do not a man make but what is in their heart. Thank you, Grandpa; you have been a great friend and inspiration.



## TABLE OF CONTENTS

TITLE PAGE .....	i
GRADUATE COMMITTEE APPROVAL.....	ii
FINAL READING APPROVAL AND ACCEPTANCE.....	iii
ABSTRACT.....	iv
ACKNOWLEDGMENTS .....	vi
TABLE OF CONTENTS.....	viii
TABLE OF FIGURES AND TABLES .....	x
INTRODUCTION .....	1
The Marital Discord Model of Depression.....	3
LITERATURE REVIEW .....	5
Marital Discord Model of Depression .....	5
Co-occurring Marital Dissatisfaction and Depression Research .....	6
Longitudinal Studies.....	8
Longitudinal Research Summary.....	15
Cultural Context.....	16
METHODS .....	21
Procedures.....	21
Sample Characteristics.....	24
Measurement.....	26
Analysis.....	29
RESULTS .....	34
Structural Models.....	34

DISCUSSION .....	38
Interpretation of Results.....	38
Marital Discord Model of Depression .....	40
Methodological Strengths .....	40
Limitations and Future Directions for Research.....	41
Clinical implications .....	43
REFERENCES .....	47
FIGURE CAPTIONS.....	54
TABLES .....	60
APPENDIX A.....	62
APPENDIX B.....	70

## TABLE OF FIGURES AND TABLES

Figure 2.1, Conceptual model (Beach, Katz, Kim, & Brody, 2003).....	52
Figure 3.1, Full model .....	53
Figure 4.1, Marital satisfaction time-1 confirmatory factor analysis.....	54
Figure 4.2, Depression factor structure models time-1 and time-2.....	55
Figure 4.3, Full hypothesized conceptual model.....	56
Table 4.1, Regression weights for the full model.....	58

## INTRODUCTION

Depression and marital discord are both recognized as major societal problems (Kaelber, Moul & Farmer, 1995). Moreover, the association between marital dissatisfaction and depression is well documented (Mead, 2002). Both marital discord and depression have negative impacts on health (Kiecolt-Glaser & Newton, 2001) and cause disruptive behaviors, emotions, and thoughts. These effects disturb work productivity, family functioning, social interactions, and other areas of the individuals' day-to-day routine (Mead, 2002). Epidemiological studies report lifetime prevalence rates for a diagnosed major depressive disorder at 15.8% (Marcotte, Wilcox-Göt, & Redmon, 1999). This prevalence rate is believed to be an underestimation as it merely reflects those who have sought clinical assistance and been diagnosed, while many individuals are neither diagnosed nor treated (Horn, 1997). Marital dissatisfaction is likewise believed to be prevalent and associated with numerous complications (Heaton & Albrecht, 1991). The problems of both depression and marital satisfaction are a major concern for those involved in prevention, triage, and treatment at a societal, political, and interpersonal level. In addition, there is also a need to understand how these phenomena affect different populations.

Among the problems associated with depression, there is evidence that between 6 to 9% of all patients seen in primary care facilities have been diagnosed with major depression (Kayton, 1987). Yet, a majority of the depressed patients are never diagnosed and merely treated by their primary physician. Horn (1997) conducted a study that pooled

13,000 randomly selected patients from six HMOs. Of these patients, 3,199 were taking psychiatric medication, usually antidepressants. Only 531 of the 3,199 patients (16.6%) were diagnosed with a psychiatric illness, with 99% (526 out of 531) of the diagnoses being some form of depression. Based on this statistic, the percentage of depression reported by Kayton (1987) is likely a huge underestimate. Horn (1997) reported that, of the 3,199 patients taking psychiatric medication, only 306 (9.6%) had been to a psychiatrist. Depression is highly associated with higher costs of medical care (Callahan, et al., 2002). The cost of health care for patients with depression is almost double patients without depression (Simon, VonKoroff, & Barlow, 1995).

Individuals in unhappy marriages have increased susceptibility to mental and physical health problems. In a comprehensive review of the literature, Kiecolt-Glaser and Newton (2001) reported that marital discord has been consistently linked to increased health risks for both men and women, much like research linking depression and health. They concluded that marital discord was a major risk factor for increased health problems, especially depression. Depression is one of the medical costs most affected by marital dissatisfaction (Kiecolt-Glaser & Newton, 2001).

The risk of a Major Depressive Disorder has been reported to be 25 times higher for individuals dissatisfied with their marriages than it was for those who reported high marital satisfaction (Weissman, 1987). Hooley and Teasdale (1989) reported that marital dissatisfaction was also an important predictor of relapse into depression. Marital quality was related to depressed mood, with the relationship being stronger for wives than for husbands (Dahle & Weiss, 1998). Cotton (1999) studied the phenomenon across age groups and reported that there was an association between marital dissatisfaction and

depression cross-sectionally among age groups.

Research that demonstrates that marital discord is a significant risk factor for depression becomes even more relevant in the context of the large number of unhappy marriages in the United States. A national study found that 10.9% of married people are living in unhappy marriages (Heaton & Albrecht, 1991). Based on this percentage, Miller (2000) estimated that, out of the 120 million married individuals in the United States (US Census Bureau, 2002), at least 600,000 are living in unhappy marriages. Thus, the link between marital discord and depression is an important issue.

#### *The Marital Discord Model of Depression*

Beach, Sandeen, and O'Leary (1990) outlined an etiological model of depression based on research linking it to marital dissatisfaction, which they called the "Marital Discord Model of Depression". They described a model of emotional distress going from marital discord to depression and proposed that if marital discord decreases, so too would depressive symptomatology. Marital discord is also fundamental in chronic depression, stating that a "couple's decreased closeness (or support) and increased conflict (or stress) tend to maintain depressive symptoms (Beach, 2003, p. 96). Thus, marital discord exacerbates depressive tendencies and maintains their existence.

Several studies have been done to test the validity of the Marital Discord Model of Depression (Beach, Katz, Kim, & Brody, 2003; Dehle & Weiss, 1998; Whisman & Bruce, 1999). This longitudinal research has generally found empirical support for the model. However, a major weakness of these studies is that they have not used significant samples of Latinos. Consequently, the model can not be generalized to this population. This omission is particularly relevant since there are currently over 35 million Latinos in

the U.S., which comprises 12.5% of the population (US Census Bureau, 2002). With this population growing rapidly in American society, it is important to understand the relationship between marital discord and depression among Latinos.

#### *Aims of the Study*

Kiecolt-Glaser and Newton (2001) report that there have been more studies linking marital dissatisfaction to depression than any other set of mental health issues. However, these studies have been conducted primarily with North American Caucasian samples. Whisman (2001) urged researchers to study ethnicity in relation to marital quality and depression, explaining that there may be culturally-based moderating factors. In addition, it is important to test the applicability of Beach's Marital Discord Model of Depression (Beach et al., 1990) on a non-Caucasian population. The purpose of this study is to test Beach's model by exploring the relationship between marital satisfaction and depression among Brazilian Latino women using longitudinal data.

By exploring the relationship between depression and marital satisfaction for Latinos, this study will focus on three primary research questions. First, is marital quality predictive of co-occurring depression at time-1? Second, is marital quality at time-1 predictive of subsequent depression at time-2 among a Latino Brazilian longitudinal sample of women, after controlling for initial depressive symptomatology? Third, are these relationships independent of age and inner-Latino racial variations (e.g. Black Latinos, White Latinos)?

## LITERATURE REVIEW

### *Marital Discord Model of Depression*

The Marital Discord Model of Depression describes an etiological path from marital discord leading to depression (Beach, et al., 1990). This relationship is both co-occurring, as well as chronological. A graphic representation of this model (Beach, et al., 2003) depicts the relationship between time-1 marital satisfaction and time-1 depression, as well as time-1 marital satisfaction and time-2 depression (See Figure 2.1). Beach believes that this developmental relationship may occur in several different ways, which are related to the relationship between spousal interactions and the presence of depressive symptomatology (Beach, et al., 1990). The model is based on relational principles that suggest a systemic relationship among family members where ones behavior has an impact on other members of the family. The Marital Discord Model of Depression describes several possible developmental processes between marital discord and depression (Beach, et al., 1990). The first example they use is coercion. This takes place as the presence of depressive symptomatology leads to the alleviation of marital discord. They suggest that individuals may engage in aversive behavior (e.g. complaining about life, self-degradation) to reduce the attacks of others. While, in essence, the depression symptoms momentarily take the focus off the marital discord, they do nothing to repair the relationship. The lack of relational repair requires increased frequency and intensity of the aversive behaviors or in other words increased presence of depressive



symptomatology. Thus, the depression is not only created in relation to marital discord, but is also maintained by it.

Beach et al. (1990) describe another example of how marital discord is related to depression called asymmetry in the relationship. They illustrate that marital discord leads to hierarchical separations and portrayal of superiority and inferiority between the couple. The individual who is treated inferior develops depression. The depressed individual is then less likely to challenge decisions and becomes more passive. This altered disposition and further self-degradation continues to reinforce the power differential, thus maintaining the depression. Beach and colleagues describe the causal relationship between marital discord and depression using these and other examples.

#### *Co-occurring Marital Dissatisfaction and Depression Research*

The Marital Discord Model of Depression is supported by ample evidence that links marital quality to depression at a single moment in time. A meta-analysis of cross-sectional research studies (N=26) relating marital quality to depression found an effect size of -.42 for women and -.37 for men (Whisman, 2001). Both effect sizes are in the medium effect size range. These effect sizes indicate that 18% of the variance for depression in wives' and 14% of the variance in husbands' depression is related to changes in marital satisfaction (Whisman, 2001). Because of the rigorous criterion for inclusion in this meta-analysis and the large number of total participants (women N=3,745 and men N=2,700), the outcomes are believed to be a reliable estimate of the degree to which marital satisfaction is cross-sectionally associated with depression.

Researchers have also looked at what factors influence the degree to which one variable affected the other. Whisman (2001) challenged researchers to focus on the

moderating and mediating factors that contribute to the risk associated with the constructs. Cross-sectional research has linked several characterological variables to marital quality and depression, such as gender, age, self-esteem, communication, and social support. Several studies have looked at different intervening variables that affect the magnitude of the relationship between marriage and depression (Dehle, Larsen, & Landers, 2001; Sacco & Phares, 2001; Sandberg & Harper, 1999). In one such study, communication style was linked to both marital satisfaction and depression (Uebelacker, Courtnage, & Whisman, 2003). Moreover, Dehle, Larsen and Landers (2001) reported that level of perceived social support was positively related to marital quality and negatively related to depressive symptoms.

Another hypothesized moderating variable is age. Of the 26 studies included in Whisman's (2001) cross sectional meta-analysis, a majority of the studies used samples with a mean age in the 20-30 year old range. Questions have been directed to whether marital quality is as associated with depression for older couples. Sandberg and Harper (1999) found that, not only was marital quality related to depression for both spouses, but also wives' marital distress was related to husbands' depression in older populations. However, they pointed out that possible differences may exist in what factors lead to overall expectations of overall life satisfaction for younger and older populations. These differences may account for altered variables indirectly affecting the association between marital quality and depression (Sandberg & Harper, 2000). So, while they found that marital quality was related to depression, they hypothesized that the reasons for this association may change as individuals get older. For example, marital quality in young adults, as well as depression, may be frequently affected by financial instability and

infrequently by health, while in later life the moderating effects may be reversed.

Self-esteem is another moderating factor for depression and marriage. This association seems to be stronger for men than for women (Culp & Beach, 1998). Men with high self-esteem were less likely to have marital dissatisfaction influence depressive symptoms. Inversely, when analyzed against marital satisfaction, depression, and self-esteem explained 14% of the variance of marital quality (Sacco & Phares, 2001).

More studies have looked at gender as a possible moderating factor of depression and marital satisfaction than any other moderating variable. The evidence suggests that there is a significantly greater association among women than men (Whisman, 2001). However, Whisman (2001) points out that many of the studies have not included gender, and future studies should be careful to include it as an influencing factor on the outcome of associations.

### *Longitudinal Studies*

*Marital dissatisfaction and depression.* Longitudinal research has also found that marital distress is predictive of depression. Consistent with the Marital Discord Model of Depression, most of the longitudinal research has tested the predictive power of marital distress on *subsequent* depression. Ulrich-Jakubowski, Russell, and O'Hara (1988) published one of the first longitudinal studies of marital quality and depression. The sample consisted of older men, and data was collected 15 months apart. They used a cross-lag structural model to analyze the data. They hypothesized that there was a reciprocal relationship between depression and marital quality (Ulrich-Jakubowski, et al., 1988). They suggested that marital quality was both a cause of and consequence of depression. However, when they ran the analysis they found only a predictive

relationship of depression leading to marital satisfaction, but not the inverse. They concluded that further research needed to be done to look at the reciprocal relationship between constructs (Ulrich-Jakubowski, et al., 1988). Their study was limited in terms of age, gender, and race demographics.

A study was conducted to test participants' perceptions that marital satisfaction caused depression in a newlywed sample (Beach & O'Leary, 1993). Two hundred and forty-one couples participated in the study. Participants were assessed for depression and relational satisfaction prior to marriage, then again at 6 months of marriage and again at 18 months. The average age of the participants was 25 years old for husbands and 23 years old for wives. Through regression analysis of the data, they confirmed their hypothesis that marital satisfaction was predictive of depression, even when controlling for initial depression levels. They found that 20% of the variance in depression at 18 months was predated by earlier marital dissatisfaction (Beach & O'Leary, 1993).

While their outcome was monumental, they cite two limitations of their study, which were participant age and race (Beach & O'Leary, 1993). Epidemiologically, the mean age of onset for major depressive disorders is in the late 20s, and the sample did not assess that period of life, thereby missing the most significant time period of depression onset. However, the results appear to be valid and generalizable for the age studied. The second major limitation was ethnicity, which was 100% White. The results, more explicitly written, state that there appears to be a relationship between marital satisfaction and depression for newlywed White people. Thus, there was no generalizability for individuals of any other ethnicities. This study supports the premise described by the Marital Discord Model of Depression with a young newly wed white sample.

At the same time, Fincham and Bradbury (1993) studied couples with a mean length of marriage of 9.4 years and wives' mean age of 32 years and a husbands' of 34 years. The sample accounted for individuals with a mean age above the peak of depression onset, bolstering up a primary weakness of Beach and O'Leary (1993). With data collected at 2 time periods, 12 months apart, they used regression analysis and found that marital satisfaction at time-1 predicted time-2 depression for men but not for women (Fincham & Bradbury, 1993).

This outcome was conflicting to the consensus found in cross-sectional research, as well as other longitudinal studies, which has generally found a relationship for women and not for men (Dehle & Weiss, 1998; Fincham, Beach, Harold, & Osborn, 1997). Fincham, et al. (1997) used Structural Equation Modeling (SEM) to test predictors of depression and found that for men, early depression was a more significant predictor of later depression than was marital satisfaction, but marital satisfaction was a better predictor for later depression in women. The precision of their analysis adds credibility to their outcomes as SEM is more poised for differentiating predictive abilities than is regression analysis.

Using regression analysis with a newlywed sample evaluated over a 3-month period, Dehle and Weiss (1998) found that the association between marital satisfaction and depression was moderated by gender. The marital quality scores for women were more predictive of depression than for men. In spite of the findings of Fincham and Bradbury (1993), it is generally believed that the predictive power of marital satisfaction on depression is greater for women than men, even though no clear statistical advantage has been empirically established.

Schafer, Wickrama, and Keith (1998) found that marital satisfaction at the time of the first wave was related to later depression. They also tested the effect of other variables on the degree of that association and found that role appraisal, self-esteem, role performance, and self-efficacy were moderating factors in the association. They used SEM to create a hypothesized path from marital satisfaction to the other intervening variables and then on to depression. This path was significant for both husbands and wives. This finding pointed out that there are likely other variables that affect the developmental process of depression, which may also be related to marital dissatisfaction. Again, their study was limited racially and outcomes should not be generalized beyond the White population.

Most recently, Beach, Katz, Kim, and Brody (2003) conducted a longitudinal analysis of the impact of marital satisfaction and depression using SEM analysis. There were 166 families that participated in the study. The age of participants and length of their marriage was much more diverse than past studies that have focused on newlyweds. They studied a structural model that linked time-1 marital satisfaction to time-1 depression and time-2 depression. They also included data from both spouses in an effort to determine if the time-1 marital satisfaction of one spouse was related to future depression in the other. They found that, not only was there an association between marital satisfaction at time-1 and depression at time-2, but there was also an association between marital satisfaction at time-1 and spouse's depression at time-2.

This study also found few gender differences (Beach, et. al, 2003). While their study included a large minority representation (18% minority), this was provided through purposive oversampling of African Americans. The study has no known percentage of

Latino participants.

*Predictive power.* The degree of predictive ability may be also described as the degree of risk of depression associated with marital discord.. Another study (Whisman & Bruce, 1999) that confirmed the basic premise of the Marital Discord Model of Depression was conducted with a sample of 904 people, whose mean age was 40 years old. They found that individuals in dissatisfied marriages were 2.4 times more likely to have a major depressive episode at the 1-year follow-up, even when controlling for history of depression (Whisman & Bruce, 1999). They found that this association was not influenced by gender, but they did not run separate Marital Discord Model of Depression models for gender. They concluded that their study suggested that “between 20% and 30% of the new MDE (major depressive episode) could be prevented if marital dissatisfaction could be eliminated” (Whisman & Bruce, 1999, pp. 676-677). Thus, prevention programs with 100% effectiveness at treating marital discord would prevent between 20 to 30% of MDE cases.

A limitation to this study was also related to ethnicity (Whisman & Bruce, 1999). The sample was 91% Caucasian, 7% African-American, 1% Latino, and 1% other. This study was the only study to report the influence from the Latino population, but the Latino population was still grossly underrepresented. Another major cultural weakness in this study was the dropout rate of minority participants. The drop-out rate for minorities was about twice as high as that for Caucasians. The drop-out rate for minorities in this study was similar to that reported by other researchers, who also had a difficult time maintaining minority inclusion (Beach, et al, 2003). Based on the cultural limitations of this study, the predictive power reported in the study is suspect when applied to the

Latino population.

*Challenging the model.* Although most of the longitudinal research has tested models where marital distress predicts subsequent depression, there is some evidence from longitudinal research that calls into question this assumed direction of causality. Kurdek (1998) followed 198 newlywed couples annually over a 4-year period. Based on the high level of change in the early years of marriage, he hypothesized that there would be a reciprocal change process between marital satisfaction and depression.

Using hierarchical linear modeling to test this hypothesis, he found that marital quality was related to depression (Kurdek, 1998). This relationship held up even when controlling for history of depression. However, these changes did not hold up over the 4-year time period; in other words, time-1 marital satisfaction was not predictive of time-4 depression. As such, he suggests that while associations exist, there is “no clear evidence regarding the causal salience of either variable” (Kurdek, 1998, p. 508). He suggested that his findings refute what was reported earlier by others and do not suggest that early marital satisfaction is predictive of depression. He suggested that the failure to replicate the findings of Fincham et al.’s (1997) study is a result of running separate analysis for gender groups, and yet he found no statistically significant predictive ability between groups. However, his sample was 98% Caucasian, which limits generalizability to White populations only. Again we see strong limitations because of racial homogeneity.

Beach, Davey, and Fincham (1999) refuted the assertion made by Kurdek (1998) by analyzing their data again replicating the methods used by Kurdek (1998) and found the same outcome as their earlier analysis. Hence, they concluded that marital satisfaction does have a predictive ability on depression. In addition, they discussed possible reasons



for the differences between outcomes, describing factors such as attrition and overall data collection time that may be responsible for the differences in outcomes. They primarily attributed Kurdek's failure to find lag effects between marital distress and depression to the length of time between points of data collection (4 years), stating that predictive effects are washed out over such a long period of time. Kurdek (1999) reran the analysis using similar time lag differences and still found no predictive ability.

After conceding that some of the differences may be due to differences between the two samples, Kurdek (1999) made several suggestions for future research. He suggested that when studies use couples data, the unit of analysis should always be the couple. He also suggested use of statistical programs to assist the analysis that allow the researchers to take into account interdependence between scores.

*Reciprocal causality.* Karney (2001) further tested the assertion that, with newlywed couples, the relationship between marital satisfaction and depression is causally reciprocal. He studied 60 newlywed couples, with 8 data collection times over a 4-year period. Growth curve analysis was used to analyze the data. This allowed him to treat each variable as a time-varying factor that predicted changes in the other variable. He found medium to large effect sizes for the associations between variables (from  $-.53$  to  $-.80$ ), regardless of direction of analysis. He reported that the size of the effect of predicting changes in marital satisfaction from changes in depression were similar to effect sizes of predicting changes in depression from changes in marital quality (Karney, 2001). His findings "support the hypothesis that changes in these two variables are significantly associated" (Karney, 2001, p.61).

There are other researchers who tested the possibility that both path directions are

right. Dehle and Weiss (1998) analyzed their data looking at initial marital quality predicting subsequent depression and found a significant relationship. They then inverted the analysis and looked at initial levels of depression and subsequent marital quality and found that there was also a significant relationship. Again, their study was racially limited to a Caucasian sample.

#### *Longitudinal Research Summary*

Longitudinal studies have enhanced our understanding of the relationship between depression and marital quality. Research to this point has articulated two important findings. First, there is a chronological relationship between marital quality and depression, the direction of which seems to be reciprocal. Beach et al. (2003) summarizes the predictive relationship eloquently by stating “the results should not be taken as indicating a unidirectional, or even a greater relative flow of causality from marital satisfaction to depression than vice versa” (p. 369). Kurdek (1999) identified several precautions that should be taken to decrease misinterpretation of results and false claims of causality. Based on those suggestions, Beach et al.’s (2003) study provided the best example of sound data collection and analysis methodology.

Second, there are intervening variables that need to be studied in order to understand this relationship. Whisman (2001) challenged researchers to engage in the “next generation” of research, which focuses on the factors that influence the level of association between variables. Specifically mentioned by Whisman (2001) were the variables of ethnicity and culture.

As noted in the review of previous research, a major weakness of the current longitudinal studies is a lack of ethnic diversity. Of the studies that reported

demographics, (7 of the 9 studies), two of them included samples that were 100% Caucasian, and only one reported any Latinos in the sample, although it was only 1% of the sample. This limits generalizability because it is not known if the association between marital distress and depression is applicable in other cultures. Consequently, research needs to be done to explore the association between ethnicity and the relationship between depression and marital satisfaction (Whisman, 2001).

### *Cultural Context*

Culture is a crucial factor in determining our interactional behaviors (Sue & Sue, 1999). It is through our family culture that we learn what it means to belong, and it is this family culture that first subjects us to values and beliefs. These beliefs help shape how we see marriage, love, security, intimacy and a myriad of other interactional viewpoints. Culture also shapes how we see issues related to power and harmony in the marital dyad (McGoldrick, Giordano, & Pearce, 1996).

To my knowledge, no longitudinal studies have been conducted in Brazil or any other Latino country relating marital quality and depression or with a Latino population within the United States. One particular motive for referring to “culture” as a potential significant intervening variable is the different functions marriage plays in different cultures. Therefore, it is important to review the limited literature regarding Latino family culture, focusing particularly on Brazilian family culture.

*Marriage.* Culture is relevant to the interplay between marriage and depression because of the huge impact culture plays in marriage. Social ideals form the expectations individuals have when they enter marriage. Sue and Sue (1999) define three different cultural approaches to relationships, stating that different cultures assume variations of

these three categories. The first interpersonal style is linear, where hierarchies in relationships are clear and expected. The second is collateral, where interpersonal consultation is important and valued. Finally, the individualistic style is where individual autonomy is the goal. The United States Euro-American culture is largely individualistic (Sue & Sue, 1999). This has an impact on the way relational problems affect personal emotional problems. On the other hand, Latino marriages are largely hierarchical (Sue & Sue, 1999).

When speaking of Latino culture, it is important to note that the broad umbrella of Latino groups is very diverse. From the southern reaches of Argentina to the island of Cuba, the cultural diversity among Latinos is astounding. However, some similarities remain. Characteristic Latino relationships are often described as emotionally and physically close, patriarchic, with clear role definitions (Sue & Sue, 1999). While Brazil is the only Latino nation to speak a language other than Spanish, it is necessary to recognize that the cultural identification is still Latino. There are differences between Brazil and other Latino cultures, but no more than between other Spanish speaking Latino cultures. The fundamental family roles and responsibilities are still Latino. As such, Brazilian research is as generalizable to the greater Latino population as any study conducted in a specific Latino location.

For a majority of Brazil, socioeconomic level has a large impact on marriage. There is a large separation between upper and lower class in Brazil, with very few middle class families. Because the cost of obtaining a marriage license is almost equivalent to the monthly income of a person earning minimum wage, many poor people in Brazil do not get legally married. Thus, many individuals live together and establish common law

marriages after they have been living together for many years. Because of the financial requirements of legal marriages, many low-income individuals perform informal ceremonies to celebrate their union. Because of this difference in the marriage culture, much of the literature describes the presence of companions, as opposed to spouses in legal marriage. However, in the individual's mind, and in terms of research, it is generally accepted that individuals who consider themselves married are categorized as married. They continue to value the marriage relationship and remain committed to their spouses.

*Depression.* Studies regarding depression in Brazil characterize the symptoms and etiology in ways that are very similar to the conceptualization of depression in the United States. So, while there may be differences with relational dynamics between Latinos and Caucasians, depression etiologies are believed to be much the same. Diagnostic criterion for depression in Brazil is build around the same set of symptoms as it is in the United States. Evidence of this can be seen in the Portuguese translation and validation of the Beck Depression Inventory (BDI) (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961). It was determined that the depression symptoms used in the BDI were similar to common depression symptoms reported by clinicians and individuals in Brazil, and, thus, the items were merely translated, not altered (Beck, Rush, Shaw, & Emery, 1982). As evidenced by the considered synonymous symptomatology in BDI translation (Beck, et al., 1982), depression symptomatology in Brazil is conceptualized similarly to the United States.

*Latino marriage and depression research.* Although no longitudinal research has been found, groundwork cross sectional research has been done with Latinos relating marriage to depression. Only two studies have looked at how marriage effects depression

in Latinos, with the first only comparing those married to those not married (Roberts & Roberts, 1982).

The first study (Roberts & Roberts, 1982) found that Mexican-American women reported higher incidences of depression than did Mexican-American men (Roberts & Roberts, 1982). They also compared the incidence of depression for married individuals and non-married individuals and found that individuals who were married were less likely to be depressed than those who were not married. This was true for both men and women. Their study did not include variables evaluating the satisfaction with marriage, which they identify as a weakness in the utility of results. They suggest that further research is needed to better understand the role of marriage in the etiology of depression among Latino populations.

Evaluations of marital satisfaction were used in the second study, which found an association between marital satisfaction and depression for 550 Mexican American women (Vega, Kolody, & Valle, 1988). They used acculturation and coping responses as controls in the study and found no association between acculturation and depression. However, they did find a small association between marital satisfaction and acculturation, with less acculturated women more likely to experience non-reciprocity of emotional support and less likely to experience role frustration. Coping responses were found to moderate the association between marital satisfaction and depression. In fact, when multiple regression was run with coping responses included, the association between marital satisfaction and depression was eliminated. They suggest that efficacy in coping with marital strain diminishes the degree to which that marital strain develops into depression.

Based on the review of literature the following hypotheses were tested:

1) Marital quality will be a significant predictor of co-occurring depression (i.e. marital quality at time-1 and depression at time-1) among Latino women, controlling for age and race.

2) Marital quality at time-1 will predict depression at time-2 among the Latino Brazilian sample of women, after controlling for initial depressive symptomatology, age, and race. Race was included as a control variable because of Brazilian racial variability. While, the entire sample is considered Latina, race was used to factor in the potentially differing experience of Black-Brazilian Latinas from White-Brazilian Latinas.

## METHODS

### *Procedures*

The data for this study were part of a larger study of Brazilian family development. The original research project was conducted by Olga Falceto, M. D., a faculty member in the Psychiatry Department at the Federal University of Rio Grande do Sul. Data were collected in collaboration with the university medical school, the hospital organization *Grupo Hospitalar Conceição*, and the Family Therapy Institute.

*Brazilian medical system.* It is important to have an understanding of the medical system in Brazil in order to more fully understand the context of the study. The primary form of medical care is a system of socialized medicine. Municipals are divided into geographic regions, which are serviced by a hospital. Within each region there are many districts with a health clinic in each district. These health clinics function much like a general practitioner does in the United States. Each clinic is responsible for a certain geographic population, generally about 6,000 people. Illness is treated first at a clinic and referrals are then made to secondary care facilities based on need. Within each clinic there is at least one individual who lives in the community that acts as the liaison between the community and the clinic. This individual facilitates a synergistic relationship between the community and their health clinic. Within each municipal there may be many hospital organizations, which are contracted by the government to provide medical care.



The hospital group responsible for the area in which the study was conducted was called *Grupo Hospitalar Conceição*. It is the second largest medical provision group in Brazil. The study was conducted in conjunction with three medical clinics, where about 18,000 people lived.

*Sampling method.* Because the clinics and the hospitals are administrated by the same organization, communication therein is very efficient. With the birth of a child, the hospital sends a document to the health clinic where the child lives, informing them of the child's birth and reporting a brief medical history. If the mother and child have not appeared at the clinic within the first 2 weeks for a well baby exam, a member of the medical team goes to the family's residence to check on the mother and child.

It was through these documents sent to the clinics that participants were identified for inclusion in the study. When the clinic received the birth notification, they informed the researchers and provided them with contact information. All children born between March of 1999 and May of 2000 were considered for eligibility in the study. When the infants completed four months of age, a medical student visited the family's household in order to get permission to carry out a family interview, obtain demographic data, and check the inclusion criteria.

*Data collection procedures.* Once the families were informed about the study and consented to participate, a family interview was scheduled. The interview was performed by two family therapists and filmed by a medical student. Therapist companionships were interchanged, with therapists conducting interviews with a number of different companions to prevent evaluation biases.

The interview was semi-structured and lasted about two hours. During this time,

in addition to collecting questionnaire data, the therapists observed the behaviors and interactions of the family members. The interview consisted of an initial open conversation with all family members, often including grandparents, other relatives, and friends. The second part was conducted only with the couple (often in the presence of the 4 month old child), and the third part was carried out individually with each of the parents. The mothers' individual questionnaire can be found in Appendix A.

The second wave of data collection was conducted when the children were 2 years old, 20 months after the first interview. Trained therapists again conducted the interviews. This wave contained many of the same types of questions as the first wave related to the marital relationship, social support, mothers' mental health, and contextual variables (See Appendix B). The second wave also included some new information regarding the child's development. Because of lack of resources available to conduct the study, data were only collected from the mother and child during the second wave.

During the 14-month period of initial data collection, there were 228 infants born. Thirteen infants and their families were excluded from the study due to medical and/or ethical reasons. There were 3 pairs of twins, 6 children born to HIV-positive mothers, 2 children who died prior to 4 months of age, and 2 who were excluded due to severe medical conditions. There were 215 families who met the inclusion criterion. Seven families refused to talk to the interviewer. All other families agreed to participate, signed informed consent, and provided demographic information. Sixty-two families did not finish the study due to lack of time availability, (mainly concerning the father). After three follow-up attempts were made to contact the family, they were considered lost from the sample. Complete data was collected on 68% of the eligible families contacted.

Because 97% of individuals reported their demographic data, t-tests were run to test the demographic similarity of the remaining participants with those who did not complete the study. No significant differences were found between groups regarding parents' age, ethnicity, and income. As such, the 70% participation rate was considered adequate for inferential interpretation of results.

Of the 153 female participants who completed data collection the first wave, 125 participated in the second wave of data collection, which represents a 18% loss from time-1 to time-2. Losses were mainly due to family relocation. T-tests were again run to determine if there were any demographic differences between those individuals who completed the second wave of the study and those who were lost from the study, but no significant differences were found between those families who responded to both waves of data collection and those who dropped out after the first wave. Thus, there is no evidence of attrition bias (Miller & Wright, 1995).

### *Sample Characteristics*

Because only mothers responded to both waves of the study, fathers were excluded from the analysis. There were 26 women who were not married at either time-1 or time-2 that were also excluded from inclusion in analysis. Consequently, these analyses focused on 99 married Brazilian women who provided complete data at time-1 and time-2. The mothers' marital status was 33.9% legally married and 67.1% common-law marriages. The mothers' mean age at time-1 was 25.9 years old, with mean years of formal education of 7.0. Fathers' mean age was 30.4, with a mean of 6.9 years of education. The mean number of children for time-1 was 2.2, and for time-2 it was 2.4. There were only 15% of the families that had additional children born between the first

and second waves. The mean number of people living in the home was 4.9.

While the population is considered Latino by virtue of country of residence, 58% were white, 27% were black, and 14% reported a mixed racial heritage. This racial breakdown is considered to be representative of this area of Brazil. Southern Brazil has a strong European cultural influence, which accounts for the larger proportion of white participants than may be expected from other regions of Brazil.

The population under study is economically heterogeneous, with the majority being lower-middle class families. The average family income was 5.6 minimum salaries. Currently in Brazil the minimum salary is about R\$250.00 Reals (This is about the equivalent of \$88.00 US dollars). Due to high inflation in the country of Brazil, minimum salary is not expressed in terms of a monetary figure, but instead as a ratio expressed in terms of numbers of minimum salaries. That way when inflation changes, the monetary value of the minimum salary can be simply adjusted to match the raising costs of living and individuals income adjusts correspondingly. For example, an individual may be contracted to work for 5 minimum salaries, and yet the specific take-home pay he or she receives fluctuates with the changing value of the currency. Consequently, even though their income fluctuates the buying power of their income is considered to be stable. The average family income in Brazil is 5.0 minimum salaries. Thus, the sample for this study is slightly higher than the national average. However, Porto Alegre has the highest standard of living in Brazil, which has an associated increase in cost of living. Consequently, it is believed that the sample is similar to the national mean in terms of socioeconomic status.

There were 73% of the fathers working at time-1, with 20% of the mothers

working outside the home. At the time of the second wave of data collection, the mean family income had dropped to 4.2, and the number of mothers working had increased to 45%. One must not misinterpret minimum salaries as purchasing power. While it is clear that the level of income in the villa had dropped, the amount of impact this had on the families' purchasing power is not known, as there is not a formula for calculating purchasing power with minimum salaries.

All households had running water and electricity. Only the poorer houses were not served by a sewage disposal system and garbage collection. All streets are paved, except for a few alleys where public safety is a serious problem. This sample is similar demographically to many other Brazilian urban populations. Demographically speaking, this sample appears to be representative of the larger population.

#### *Measurement*

*Depression.* Depression was measured in two ways. The first measure was the SRQ-20 (Harding, et. al, 1980), which was developed in collaboration with the World Health Organization specifically as a triage mental health symptom evaluation in developing countries. The original version has 24 questions divided into 2 groups, 20 questions evaluating non-psychotic symptoms and 4 evaluating psychosis. The SRQ-20 (items related to non-psychotic symptoms) has been used in many triage situations and studies in Brazil and other countries (See Appendix A). It was created through a series of evaluations of 1624 patients in 4 countries (Harding, et. al, 1980). Sensitivity ranged between 73% and 83%, with specificity between 72% and 85%. Diagnoses derived from the instrument were 87.8% mood disorders (Harding, et. al, 1980). Scores for the SRQ-20 can range from 0 to 20. Zero being a total lack of depressive symptomatology and 20 the

presence of symptomatology for all indicators. The SRQ scores in the sample had a range of 19 at time-1 and 18 at time-2. The mean for time-1 was 5.1 (sd=3.73) and for time-2 it was 5.4 (sd=3.73).

The instrument was created in multiple languages and therefore translation and validation procedures were conducted simultaneously with instrument development. The instrument was validated in Brazil, yielding a sensitivity of 83% and specificity of 80% (Mari & Williams, 1986). They reported that the SRQ-20 was an accurate and appropriate screening measure of mental health symptomatology for Brazil.

Because the instrument was not designed to merely assess depression, four tests were used to validate its use in this study. The first was a face validity evaluation. The items in the instrument were checked against the criterion of depression provided in the American Psychiatric Association (DSM-IV-TR, 2000), with all the items related to the assessment criterion of depression. The second method of validation was to compare the instrument with the Beck Depression Inventory (BDI). During the second wave of data collection, the Portuguese BDI was used. While this instrument could not be used in the analysis because it was not available for wave-1, the results at time-2 were utilized to test the SRQ and BDI equivalence. A correlation was run with the outcomes of the two instruments. The Pearson R for the instruments was .71 ( $p < .001$ ) indicating high association between the two instruments. The third method of validation was conducted through a correlation between the SRQ and the therapist's assessment from the interview. This yielded a correlation of .60 ( $p < .001$ ) for time-1 and .636 ( $p < .001$ ) for time-2, further indicating the utility in evaluation of depression symptomatology. Finally, another Brazilian validation study of the SRQ concluded that the instrument was particularly

effective at evaluating depression (Gorenstein, Andrade, Filho, Tung, & Artes, 1999). Based on these results, the SRQ-20 was considered to be a valid measure of depression symptomatology.

In conjunction with the SRQ-20, the therapists provided psychological evaluations of the participants. These evaluations were all strongly associated with the SRQ scores, as indicated above. Trained psychiatrists and family therapists provided these evaluations. Interactions from the face-to-face interviews were used as the basis of these evaluations. Scores on this evaluation ranged from 1, indicating no presence of disturbance related to depression, to 3, indicating severe disturbance. Scores in the data set ranged from 1 to 3. The mean for time-1 was 2.08 (sd=.94) and for time-2 it was 1.49 (sd=.63).

*Marital quality.* There are no instruments translated and validated to assess marital quality in Brazil, so no psychometrically-tested measures were available for this study. There were four items from the questionnaire that were used to assess marital satisfaction at time-1. The questions were (translated into English) “How is your relationship with your companion”? A 3-point Likert scale ranging from 1 “good” to 3 “very difficult” was used. The second question (also in English) was “How is your sex life”? This question was organized into a 7-point Likert scale ranging from 1 “good, as usual” to 7 “nonexistent”. The third question was “Are you content with the way that your companion expresses to you what he feels and thinks”? This question was rated on a 3 point Likert scale, with 1 being “content” and 3 being “not content”. The final question asked, “Do you have frequent arguments”? Scores ranged from 1, indicating “no” they do not have frequent arguments, to 3 “yes” they have frequent arguments. Higher scores on

all marital dissatisfaction items indicated increased levels of dissatisfaction. The global relationship mean was 1.19 with a range of 2 and standard deviation of .47. The mean for emotional expression was 1.47 with a range of 2 and a standard deviation of .72. The range for sexual satisfaction was 6 with a mean of 2.67 (sd=1.77). The argument frequency range was 3 with a mean of 1.74 (sd=.708).

*Control variables.* The research literature has identified several demographic variables that may influence the association between depression and marriage. The most researched control variable is gender (Whisman, 2001). Utilization of this variable was not possible in this study due to the inclusion of women only. The second variable discussed in literature is that of respondent age (Sandberg & Harper, 2000).

Of primary concern in this study is the understanding of the association between marital satisfaction and depression among Latinos. Like many countries, Brazil is racially diverse. While racial diversity exists, there is Latino cultural homogeneity. As such, it was important to include race in the analysis to assess within cultural differences for Black Brazilians and White Brazilians. These racial categories were Black, White, Mixed race, and other. These categories are based on Brazilian ethnic appropriateness.

Income was also included as a control variable. As stated earlier, this variable is expressed in terms of minimum salaries. While this is difficult to compare to U.S. economy, the figures used in this study are reflexive of research conducted in Brazil. However, in an attempt to contextualize the model and study, education was also used as a control variable as it could also be operationalized as an indicator of socioeconomic status.

*Analysis*



A Structural Equation Modeling (SEM) method of analysis was used as the primary data analytic strategy. As suggested by Kurdek (1999), the SEM analysis program AMOS (Arbuckle, 1999) was used to compute model outputs, allowing for the control of interdependence and error variance. AMOS uses graphic models to represent the model structure. Figure 3.1 illustrates the full model used. The measured items are depicted as rectangles and the variables are represented as ellipses. Arrows represent the relationships between the variables.

SEM is also often referred to as covariance structure analysis, covariance structure modeling, and analysis of covariance structures (Kline, 1998). SEM is generally superior to standard multiple regression when analyzing survey data because it accounts for measurement error, which leads to more accurate estimates of associations between variables (Byrne, 2001). SEM also has the ability to include unobserved (i.e. latent) variables in the analysis. Byrne (2001) states that SEM is particularly useful in the analysis of nonexperimental data, because it allows the evaluation of constructs that are difficult to operationalize or measure directly.

The primary constructs in this study, depression and marital satisfaction, could not be measured directly; rather, their measurement was dependent upon a compilation of questions. These unobservable variables are called latent variables or latent factors. These variables are operationalized in terms of the behaviors, perceptions, or attitudes believed to represent them (i.e. observed or manifest variables) and assessed by specific items in the questionnaire.

An understanding of latent variables is necessary to accurately interpret the results of SEM analysis. There are two types of latent variables (e.g. exogenous and

endogenous). Exogenous latent variables are independent or predictor variables, causing fluctuations in other latent variables. Endogenous variables are dependent or criterion variables being acted upon. It is important to note that with SEM analysis, variables are not binarily limited, and, as such, the same latent variable in a given model may be both endogenous in one part of the path and exogenous to another. The strength of SEM is that it is able to compute the influence of multiple latent variables simultaneously (Kline, 1998).

Graphic symbols are used to represent different variables and their inter-associations. Ellipses represent latent factors, rectangles represent observed variables, single-headed arrows represent the impact of one variable on another, and double-headed arrows represent covariances or variable correlations. The single-headed arrows reported as regression coefficients are often referred to as path coefficients. The regression coefficients describe the degree of influence one variable has on the other (Byrne, 2001).

There are two major parts of the SEM output: goodness-of-fit and path coefficients. First, the goodness-of-fit of the model is tested. Goodness-of-fit statistics report how well the hypothesized model describes the data. Kline (1998) states that the fit statistics reported should always include the chi-square statistic, a measure of the overall explained variance, a measure of fit that adjusts for parsimonious models, and an index of standardized residuals. The first goodness-of-fit statistic reported is the chi-square. This statistic reports the likelihood that the hypothesized model accurately represents the data. Counter to logic with traditional chi-square results, a significant chi-square statistic in SEM indicates a poor fitting model; thus, when the model does not have a significant chi-square, it is said to be a good fitting model. This is because a nonsignificant chi-square

value suggests that there is no significant difference between the model and the structure of the data. The GFI is a measure of the overall explained variance. It is a comparison of the variance and covariance matrices of the hypothesized model with the variance and covariance matrices of no model at all. As such, it describes how much better the hypothesized model describes the phenomena than simple covariance matrices (Byrne, 2001). Scores of .90 and higher indicate superior fitting models, with scores close to .90 indicating that the hypothesized model is adequate and better than no model at all (Byrne, 2001). The Tucker-Lewis index indicates the degree to which the data fits the model, while adjusting for parsimony (Boomsma, 2000). Thus, the Tucker-Lewis adjusts the explained variance for model complexity (Kline, 1998). Tucker-Lewis scores of .90 and higher are regarded as adequate, with scores of .95 and above considered superior fitting models (Byrne, 2001).

The Root Mean Square Error of Approximation (RMSEA) represents estimated error of calculating the results. It utilizes standardized residuals and error terms to evaluate the degree of fit with the data being utilized. As such, this measure is somewhat sample size sensitive, with small samples running the risk of overestimation. Scores of less than .05 are considered good fitting models and .08 considered adequate fitting models (Cudeck & Browne, 1983). While the RMSEA is considered to be one of the most useful statistics in determining model fit (Boomsma, 2000; Byrne, 2001), because of the small sample size in this study, the other fit statistics will provide more accurate reporting of fit.

After determining the goodness-of-fit of the model, which process often includes making slight changes in the model to improve its fit, the second element of the SEM

output is the hypothesized model regression coefficients. SEM computes path coefficients for the latent variable associations, which are used to verify or refute the hypotheses of the study. These path coefficients are reported in unstandardized and standardized coefficients, with the degree significance reported as a p-value.

## RESULTS

### *Structural Models*

The purpose of structural models is to determine the regression structure among latent variables. The conceptual model is based on the research question being asked. In this case the model is derived from the Marital Discord Model of Depression (Beach, et al., 1990).

*Marital Discord Model of Depression.* The model was tested in three steps. The first step was to test the factor structure of the marital dissatisfaction latent variable. It is important to note that higher scores indicate increased marital discord; consequently, a positive relationship with depression indicates that higher marital discord is associated with higher depressive symptomatology. Analyzing the factor structure of the marital satisfaction variable was important because the items used in this study were not part of a standardized assessment instrument.

Results indicated that three of the four items were significantly related to marital dissatisfaction, with the frequency of arguments items not having a significant effect on the latent variable. This result is consistent with Gottman's (1999) research, which indicates that how often a couple argues is not as important as how quickly and effectively they can resolve the conflict. Therefore, the frequency of arguments is not a good indicator of marital satisfaction. Consequently, it was theoretically sound to exclude this item from the factor structure. The remaining three items were significantly related to

marital dissatisfaction and were included in the model (See Figure 4.1).

The second step in model identification was to run a model including depression at time-1 and time-2 (See Figure 4.2). This was essential because the results of this model would isolate the amount of variance for depression time-2 that is explained by depression time-1. Results indicated that the depression latent factors were significantly related at time-1 and time-2. The fit statistics for this model indicated adequate model fit. The chi-square for the model was 3.34 ( $p=.07$ ,  $N=99$ ,  $df=1$ ). The GFI was .98, the TLI was .88. The RMSEA was .154; however, because of the sensitivity to number of parameters and small sample size, the RMSEA is less certain in this case. The initial results suggested that there was one suggested modification between the SRQ at time-1 and time-2. This modification was logical as the two questionnaires are repeated and some residual measurement error is to be expected. After making this modification to the model, SEM output indicated that the standardized regression coefficient between the depression latent variables was .59 ( $p<.000$ , unstandardized regression=.41). SEM analysis computes a squared multiple correlation coefficient, which, like the  $R^2$  in multiple regression, represents the percent of variable change explained by the exogenous variables influencing it. The squared multiple correlation indicated that depression at time-1 predicted 34% of the variance for depression time-2. These results indicate that there is a significant association between time-1 depression and time-2 depression.

The final step was to run the full conceptual model (See Figure 3.1). The results of the goodness-of-fit tests indicated that the model fit the data well. The chi-square for the full model was 4.45 ( $p=.93$ ,  $df=10$ ,  $N=99$ ), the GFI .99, the TLI was 1.06 and the RMSEA was .000. Figure 4.3 illustrates the standardized path coefficients of the final full

model.

Control variables were included in the initial analysis to assess their impact on the variables in question. The standardized regression value for age was .19 ( $p=.11$ ; unstandardized regression = .03), indicating that it did not have a significant relationship in the model, and as such did not have an influence on the outcome. The standardized regression weight of race was -.06 with a significance value of .60 also indicating nonsignificance (unstandardized regression = -.08). The standardized regression weight of income was .13 ( $p=.25$ , unstandardized regression = .01). Income was also not significant in the model. The standardized regression weight for education was -.19 with a significance of  $p=.10$  indicating no significance (unstandardized regression = -.06). These results suggest that the relationship between marital satisfaction and depression is independent of age and inter-Latino racial variation. Factors in the model that are not theoretically necessary and for which there is no significant relationship are omitted from the final model (Byrne, 2001). This is done to improve the parsimony of the model. Because the control variables were neither influential nor necessary for the functioning of the model, they were omitted from the final graphic model.

As indicated in Table 4.1, there was a significant relationship between depression at time-1 and marital satisfaction at time-1, with a standardized path coefficient of .70 ( $p<.001$ ), which supports the first hypothesis. The second hypothesis was also supported, with time-1 marital satisfaction being a significant predictor of time-2 depression (standardized coefficient=.78,  $p < .01$ ). In this model, time-1 marital satisfaction was predictive of 49.2% of the variance for time-1 depression. With the exogenous variables used to predict changes in depression at time-2 being time-1 marital satisfaction and

time-1 depression, the combined percentage of depression time-2 variance predicted by these variables was 59.9%.



## DISCUSSION

### *Interpretation of Results*

*Hypothesis 1.* For women in this Brazilian sample, the level of marital satisfaction at time-1 predicted the depression at time-1, independent of age and racial variation. These cross-sectional results are similar to findings from the other cross-sectional studies with Latinos. Like the previous study (Vega, et al., 1988) the association between marital satisfaction and depression was significant.

This finding is also consistent with the most recent study in the United States using marital satisfaction to predict depression (Beach, et al., 2003). In their model, the relationship between time-1 marital satisfaction and time-1 depression yielded a standardized parameter estimate of  $-.49$  ( $p < .01$ ). In this Latino model the standardized parameter estimate for this relationship was  $.70$  ( $p < .001$ ). (It is important to note that in the present study, higher marital satisfaction was represented by lower scores. Thus, while it appears that the relationship between studies is inverted, in reality they are synonymous.) Comparisons of the parameter estimates indicate that there may be a more significant relationship for Latinos cross-sectionally than for their White cohorts.

Sue and Sue (1999) state that Euro-American culture adopts a more individualistic approach to marriage, while Latinos have a more hierarchical approach. These hierarchical structures imply that the wife has a larger role than the husband in the maintenance of interpersonal aspects of family life, of which marital quality is one. It is

then reasonable that the gender gap in the relationship between depression and marital quality may be more pronounced with the Latino population. Further research must be done to test whether degree of perceived responsibility for marital quality influences the relationship between co-occurring marital dissatisfaction and depression.

*Hypothesis 2.* For this Latino sample, marital satisfaction at time-1 was predictive of depression at time-2. The association is much stronger for this population than that reported by Beach et al. (2003). As discussed earlier, this was true even when controlling for age and race. Again, this outcome may indicate differences of the Latino structure and function of marriage.

The relationship between marital satisfaction and depression may well be stronger than the results of this study indicate. Beach et al. (2003) points out that the “appropriate time frame within which to observe causal effects between marital satisfaction and depression is not known” (p. 369). However, he agrees with Fincham et al. (1997), who suggest that the optimal cross-lag relationship between marital distress and subsequent depression would peak in less than a year and then decline. However, the time frame between data collection points in this study was 2 years, which is longer than the one year optimal lag time suggested by Fincham et al. (1997). The degree to which the relationship between variables dissipates over time is not known. As such, it is impossible to compute the point at which there is maximum variable association. Consequently, the variable coefficients in this study are believed to be underestimates of the true relationship between marital satisfaction and depression for Latino women.

Of particular note is the lack of significance between depression at time-1 and time-2, when factoring the marital satisfaction scores. This finding is contradictory to the

findings of Beach et al. (2003), who found a more significant relationship between depression at time-1 and time-2 than they did between marital satisfaction at time-1 and depression at time-2. The difference may be due to the higher influence of marital satisfaction on depression among the Latino population. With time-1 marital satisfaction predicting so much of the variance of time-2 depression in the Latino sample, time-1 depression may not be a significant predictor of time-2 depression when time-1 marital satisfaction is included in the model. In other words, time-1 marital satisfaction subsumes much of the predictive power of time-1 depression. This finding points to the importance of marital distress as a predictor of subsequent depressive symptoms. Similarly, depression at time-2 was lower than at time-1, which is likely attributed to post-partum depression after childbirth at time-1. However, the relationship between depression and marital satisfaction held up at both time periods, again pointing to the intricate relationship between the variables.

#### *Marital Discord Model of Depression*

The findings of this study suggest that the Marital Discord Model of Depression (Beach, et al., 1990) is applicable to Latino populations. This model proposes that marital discord both causes and maintains depressive symptomatology. This finding is significant in that it is the first study to relate marital satisfaction longitudinally to depression among Latinos. It also suggests that the association between variables may be greater for Latinos than for Whites.

#### *Methodological Strengths*

Since acculturation has been hypothesized as a moderating variable between marital satisfaction and depression, the present study was more aptly poised to explicitly

test the relationship between these variables because it was conducted within the native Latino culture. This characteristic helped to isolate the impact marital satisfaction has on the etiology of depression, while eliminating acculturation influence. However, it is recognized that for Latino Americans, further research will be needed. The study also provided a much-needed longitudinal perspective on the association between marital distress and depression in the Latino population.

As a way to improve the quality of marital quality and depression research, Kurdek (1999) recommended that researchers “use statistical programs that enable the researcher to take into account the likely interdependence” (p. 674). To this end, AMOS (Arbuckle, 1999) was used to account for interdependence between variables and measurement errors. SEM is ideal for explaining factors that affect construct variance. Another name used to for SEM is analysis of covariance structures (Boomsma, 2000), which highlights one of the primary aims of the study and suggestion of Kurdek (1999), which is to isolate the amount of variance in one variable that is caused by another.

#### *Limitations and Future Directions for Research*

Just as there is variance between cultures, there is also variance within cultures. Because there is great diversity between Latino cultures, it is important not to generalize these findings to all Latino populations. Further research needs to be conducted to test if the relationship between marital satisfaction and depression is consistent among Latinos living in the United States, as well as to test the possible differences between Latino sub-populations living in the United States (i.e. Mexican- Americans, Porto Rican-Americans, Brazilian-Americans, Cuban-Americans, etc.), as well as those living in their native countries. Consequently, additional research needs to be done to generalize these findings

to the broader Latino population. In addition, future research needs to be done to make assessment instruments available for construct evaluation. The translation and validation of instruments is a major need for the Latino research community. While efforts are currently being invested in the translation and cultural validation of the RDAS into Portuguese, the current study was not able to employ a standardized instrument to measure marital satisfaction. While the lack of a standardized assessment instrument for use in this study makes it difficult to unilaterally compare the results to the Beach et al. (2003) study, this is not the first study to use psychometrically untested measures of marital satisfaction. For example, Whisman and Bruce (1999) used a single question to assess marital satisfaction, which asked participants to rate their global satisfaction with their marriage. The responses were then categorized into two groups, those satisfied with their marriage and those dissatisfied. The specificity employed in the current assessment of marital satisfaction is believed to be significantly more sensitive with varying degrees of marital satisfaction. However, it must be noted that a standardized assessment instrument did not assess marital satisfaction. Future research with Latino populations that uses standardized instruments will improve the internal and external validity of the study.

Another limitation is that only data from the mothers was used in this study. Whisman (2001) noted that several studies have identified different degrees of association between marital quality and depression for men and women. Because the present study did not collect data from the fathers at time-2, the analysis was limited to only mothers, which eliminated the ability to describe the interrelationship between husband and wife marital satisfaction. Beach et al. (2003) reported significant gender

differences in their study. They found that wife's marital satisfaction at time-1 was predictive, not only of their time-2 depression, but also their husbands' time-2 depression.

Beach et al. (2003) point out that gender differences may be due to stereotypical perceptions of responsibility for the marital relationship. Family structures influence the degree of perceived responsibility for marital quality (Sue & Sue, 1999). Latino relationships have been characterized as hierarchical, with women assuming the role of maintaining the relationship. As such, it stands to reason that gender differences related to the associations between marital satisfaction and depression may be much more pronounced among Latinos. Further research needs to be done to assess gender differences as well as the cross spouse predictive ability among Latinos.

In addition, it is important to note that this study did not assess onset of a major depressive episode (MDE); rather the study measured depression symptomatology. Consequently, interpretations can not be made about the influence of marital distress on MDE.

#### *Clinical implications*

The current study helps to expand the scope of the Marital Discord Model of Depression by further legitimizing the relationship between co-occurring marital dissatisfaction and depression and by delineating the longitudinal relationship between marital satisfaction and subsequent depression among a Latino population. Future research that explores possible pathways between marital distress and depression and includes both partners will further clarify this relationship.

These findings supporting the applicability of the Marital Discord Model of

Depression (Beach, et al., 1990) to a Latino population suggest the utility of using relationally focused therapy to treat depression among this population. Mead (2002) identified Behavioral Marital Therapy for Depression (BMT-D), which uses the Marital Discord Model of Depression as its theoretical foundation, as one of the most empirically based treatment models in MFT.

BMT-D was developed out of a response to research that found that, when treating depression with individuals who also reported marital discord, individual treatment was unsuccessful in improving marital satisfaction (Beach, Winters, & Weintraub, 1986). Hence, marital discord continued even when depression was alleviated. Beach, et al. (1990) proposed that inverting the treatment approach would reduce both depression and marital distress. They used the etiological path from marital discord to depression in the Marital Discord Model of Depression as a basis for their clinical model of intervention.

The treatment protocol of BMT-D is based on several assumptions regarding the way marital satisfaction affects depression. They proposed that there are six aspects of marital interaction that act as a source of defense against depression and five aspects of the marital relationship that have the potential to exacerbate depressive tendencies (Beach, et al., 1990). Interventions are designed to strengthen the couple's ability to utilize these marital defense mechanisms. These preventative aspects of marriage are couple cohesion, acceptance of emotional expression, actual and perceived coping assistance, self-esteem support, spousal dependability, and intimacy. The characteristics of marital discord that exacerbate depression are verbal and physical aggression, threats of separation and divorce, severe spousal denigration, criticism, and blame, severe

disruption of scripted routines, and major idiosyncratic marital stressors.

Sandberg and Harper (2000) suggest that there may be different etiologies for the relationship between marital satisfaction and depression among age groups. They describe that many of the factors that contribute to exacerbation of the relationship between marital satisfaction and depression change over time. This same etiological argument can be made for the relationship between marital distress and depression among different cultures and countries. Different cultures may continue to have a relationship between marital satisfaction and depression even though the factors contributing to that relationship may be different. Care must be taken so as to not over interpret the outcomes of this study to mean that marital discord and depression have the same etiologies, and, therefore, the same treatment strategies for Latinos as it does for Whites. In fact, Beach et al. (1990) expressed the concern that without fully understanding the association between depression and marital satisfaction, treatment protocols unilaterally applied would be unethical. It is unknown if the pathways delineated in Beach's model apply to the Latino population. Research needs to look at the effects these pathways have on the development of depression among Latinos.

In addition, there are no outcome studies of BMT-D that have been conducted with the Latino population. Furthermore, in Meads' (2002) review of family related treatments of depression when discussing contraindication for BMT-D, cultural diversity is not listed. While the current study supports the theoretical presuppositions of BMT-D, this is not adequate to interpret that it is efficient in the treatment of Latinos. On the other hand, Bean, Perry, and Bedell (2001) offer some treatment guidelines for applying MFT models to Latino populations that support the use of BMT-D with Latino populations.



They suggest, based on a comprehensive review of the psychotherapy research literature with Latinos, that in working with Latinos, it is important to include the family members in therapy. Based on the high association between marital satisfaction and depression in this study and this treatment guideline from Bean et al. (2001), it stands to reason that couples treatment of depression is the preferred method of treatment. However, further research is needed to test the effectiveness of couple depression treatment models with Latinos.

While the Marital Discord Model of Depression and its application to BMT-D were explicitly examined in this study, it should not be assumed that the results of the study apply only to BMT-D. Emotionally Focused Couples Therapy (EFT) also asserts that couples treatment of marital discord impacts depression (Dessaulles, Johnson, & Denton, 2003). They reported on an outcome study that found EFT to be equally effective at reducing depression symptomatology as was pharmacotherapy. Fundamental in their study was the assertion that marital satisfaction impacts depression. They also used marital dissatisfaction to conceptualize the etiology of depression, as well as its resolution, using the treatment of marital dissatisfaction as the intervention strategy for depression. Consequently, the utility of the findings in this study apply not only to BMT-D, but also other theories that approach depression from a relational perspective.

## REFERENCES

- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4<sup>th</sup> ed. text revision). Washington, DC: Author.
- Arbuckle, J. L. (1999). *Amos*. (Version 4.1) [Computer software]. Chicago, IL: SmallWaters Corp.
- Beach, S. R. H., Davey, A., & Fincham, F. D. (1999). The time has come to talk of many things: A commentary on Kurdek (1998) and the emerging field of marital process in depression. *Journal of Family Psychology, 13*, 663-668.
- Beach S. R. H. & Gupta, M. (2003). Depression. In D. K. Snyder & M. A. Whisman, (Eds.), *Treating difficult couples: helping clients with coexisting mental and relationship disorders* (pp. 88-112). New York: Guilford Press.
- Beach S. R. H., Katz, J., Kim, S., & Brody, G. H. (2003). Prospective effects of marital satisfaction on depressive symptoms in established marriages: A dyadic model. *Journal of Social and Personal Relationships, 20*, 355-371.
- Beach, S. R. H. & O'Leary, K. D. (1993). Marital discord and dysphoria: For whom does the marital relationship predict depressive symptomatology. *Journal of Social and Personal Relationships, 10*, 405-410.
- Beach, S. R. H., Sandeen, E. E., & O'Leary, K. D. (1990). *Depression in Marriage*. New York: Guildford Press.
- Beach, S. R. H., Winters, K. C., & Weintraub, S. (1986) Marital dissolution and distress

- in a psychiatric population: A longitudinal design. *Behavioral Residential Treatment, 1*, 217-229.
- Bean, R. A., Perry, B. J., & Bedell, T. M. (2001). Developing culturally competent marriage and family therapists: Guidelines for working with Hispanic families. *Journal of Marital and Family Therapy, 27*, 43-54.
- Beck, A. T., Ward, C. H., Mendelson, M., Mock, J., & Erbaugh, G. (1961). An inventory for measuring depression. *Archives of General Psychiatry, 4*, 53-63.
- Beck, A. T., Rush, A. J., Shaw, B. F., & Emery, G. (1982). *Terapia cognitiva da depressão [cognitive therapy of depression]* (V. Ribeiro, Trans.). Rio de Janeiro, Brazil: Zahar.
- Boomsma, A. (2000). Reporting analysis of covariance structures. *Structural Equation Modeling, 7*, 461-483.
- Byrne, B. M. (2001). *Structural equation modeling with AMOS: Basic concepts, application, and programming*. New Jersey: Lawrence Erlbaum Associates.
- Callahan, E. J., Bertakis, L. D., Azari, R., Robbins, J. A., Helms, L. J. & Leigh, J. P. (2002). Association of higher costs with symptoms and diagnosis of depression. *The Journal of Family Practice, 51*, 540-544.
- Cotton, S. R. (1999). Marital status and mental health revisited: Examining the importance of risk factors and resources. *Family Relations, 48*, 225-233.
- Cudeck, R. & Browne, M. W. (1983). Cross-validation of covariance structures. *Multivariate Behavioral Research, 18*, 147-167.
- Culp, L. N., & Beach, S. R. H. (1998). Marriage and depressive symptoms: The role and bases of self-esteem differ by gender. *Psychology of Women Quarterly, 22*, 647-

663.

Dehle, C., Larsen, D., & Landers, J. E. (2001). Social support in marriage. *The American Journal of Family Therapy, 29*, 307-324.

Dehle, C., & Weiss, R. L. (1998). Sex difference in prospective associations between marital quality and depressed mood. *Journal of Marriage and the Family, 60*, 1002-1011.

Dessaulles, A., Johnson, S. M., & Denton, W. H. (2003) Emotion-Focused Therapy for Couples in the treatment of depression: A pilot study. *American Journal of Family Therapy, 31*, 345-353.

Fincham, F. D., Beach, S. R. H., Harold, G. T., & Osborn, L. N. (1997). Marital satisfaction and depression: Different causal relationships for men and women? *Psychological Science, 8*, 351-357.

Fincham, F. D., & Bradbury, T. N. (1993). Marital satisfaction, depression and attributions: A longitudinal analysis. *Journal of Personality and Social Psychology, 64*, 442-452.

Gorenstein, C., Andrade, L., Filho, A. H. G. V., Tung, T. C., & Artes, R. (1999). Psychometric properties of the Portuguese version of the Beck Depression Inventory on Brazilian college students. *Journal of Clinical Psychology, 55*(5), 553-562.

Gottman, J. M. (1999) *The marriage clinic: A scientifically based marital therapy*. New York: W. W. Norton & Co, Inc.

Harding, T. W., De Arango, M. V., Baltazar, J., Climent, C. E., Ibrahim, H. H. A., Ladrado-Ignacio, L., Srinivasa Murthy, R., & Wig, N. N. (1980) *Psychological*

*Medicine, 10*, 231-241.

Heaton, t. B., & Albrecht, S. L. (1991). Stable unhappy marriages. *Journal of Marriage and the Family, 53*, 747-758.

Hooley, J. M., & Teasdale, J. D. (1989). Predictors of relapse in unipolar depressives: Expressed emotion, marital distress, and perceived criticism. *Journal of Abnormal Psychology, 98*, 229-235.

Horn, S. D. (1997). Overcoming obstacles to effective treatment: Use of clinical practice improvement methodology. *Journal of Clinical Psychiatry, 58(suppl 1)*, 15-19.

Kaelber, C. T., Moul, D. E., & Farmer, M. E. (1995) Epidemiology of depression. In E. E. Beckham & W. R. Leber (Eds.). *Handbook of Depression* (2<sup>nd</sup> ed.), pp. 3-35. New York, NY: Guilford.

Karney, B. R. (2001) Depressive symptoms and marital satisfaction in the early years of marriage: Narrowing the gap between theory and research. In S.R.H. Beach, (Ed.). *Marital and Family Processes in Depression: A Scientific Foundation for Clinical Practice* (pp. 3-24). Washington, DC: American Psychological Association.

Kayton, W. (1987). The epidemiology of depression in medical care. *International Journal of Psychiatry Medicine, 17*, 93-112.

Kiecolt-Glaser, J. K., & Newton, T. L. (2001). Marriage and Health: His and hers. *Psychological Bulletin, 127*(4), 472-503.

Kline, R. B. (1998). *Principles and practices of structural equation modeling*. New York: Guilford Press.

Kurdek, L. A. (1998). The nature and predictors of the trajectory of change in marital

- quality of the first 4 years of marriage for first-married husbands and wives. *Journal of Family Psychology*, *12*, 494-510.
- Kurdek, L. A. (1999). More differences about gender differences in marriage: A reply to Beach, Davey, and Fincham (1999). *Journal of Family Psychology*, *13*, 669-674.
- Marcotte, D. E. Wilcox- Göt, V. & Redmon, D. P., (1999) Prevalence and patterns of major depressive disorder in the United States labor force. *The Journal of Mental Health Policy and Economics*, *2*, 123-131.
- McGoldrick, M., Giordano, J., & Pearce, J. K. (1996). *Ethnicity and family therapy* (2nd ed.). New York: Guilford Press.
- Mead, D. G. (2002). Marital distress, co-occurring depression, and marital therapy: A review. *Journal of Marital and Family Therapy*, *28*(3), 299-314.
- Miller, R. B. (March 11, 2000). *The case for marital distress as a public health problem*. Revitalizing the Institution of Marriage for the 21<sup>st</sup> Century. Brigham Young University, Provo, UT.
- Miller, R. B. & Wright, D. W. (1995) Detecting and correcting attrition bias in longitudinal family research. *Journal of Marriage and the Family*, *57*, 921-929.
- Mari, J. S. & William, P. A. (1986). A validity study of psychiatric screening questionnaire (SRQ-20). *British Journal of Psychiatry*, *42*(Supl. 1), 55-60.
- Roberts, R. E. & Roberts, C. R. (1982). Marriage, work, and depressive symptoms among Mexican Americans. *Hispanic Journal of Behavioral Sciences*, *4*, 199-221.
- Sacco, W. P., & Phares, V. (2001). Partner appraisal and marital satisfaction: the role of self-esteem and depression. *The Journal of Marriage and the Family*, *63*, 504-513.

- Sandberg, J. G., & Harper, J. M. (1999). Depression in mature marriages: Impact and implications for marital therapy. *Journal of Marital and Family Therapy*, 25(3), 393-406.
- Sandberg, J. G., & Harper, J. M. (2000). In search of a marital distress model of depression in older marriages. *Aging and Mental Health*, 4(3), 210-222.
- Schafer, R. B., Wickrama, K. A. S., & Keith, P. M. (1998). Stress in marital interaction and change in depression: A longitudinal analysis. *Journal of Family Issues*, 19(5), 578-594.
- Simon, G. E., VonKoroff, M., & Barlow, W. (1995). Health care costs of primary care patients with recognized depression. *Archives of General Psychiatry*, 52, 850-856.
- Sue, D. W. & Sue, D. (1999). *Counseling the Culturally Different: Theory and Practice*. New York, NY: John Wiley & Sons, Inc.
- Uebelacker, L. A., Courtnage, E. S., & Whisman, M. A. (2003). Correlates of depression and marital dissatisfaction: Perceptions of marital communication style. *Journal of Social and Personal Relationships*, 20, 757-769.
- Ulrich-Jakubowski, D., Russel, D. W., & O'Hara, M. W. (1998). Marital adjustment difficulties: Cause or consequence of depressive symptomatology? *Journal of Social and Clinical Psychology*, 7, 312-318.
- US Census Bureau, (2002). *Census 2000 Briefs and Special Reports* (Published online at <http://www.census.gov/population/www/cen2000/briefs.html>). Washington, DC: Author.
- Vega, W. A., Kolody, B., & Valle, R. (1988). Marital strain, coping and depression

among Mexican-American women. *Journal of Marriage and the Family* 50, 391-403.

Weissman, M. M. (1987). Advances in psychiatric epidemiology: Rates and risks for major depression. *American Journal of Public Health* 77, 445-451.

Whisman, M. A., (2001). The association between depression and marital dissatisfaction. In S.R.H. Beach, (Ed.). *Marital and Family Processes in Depression: A Scientific Foundation for Clinical Practice* (pp. 3-24). Washington, DC: American Psychological Association.

Whisman, M. A. & Bruce, M. L (1999). Marital dissatisfaction and incidence of major depressive episode in community sample. *Journal of Abnormal Psychology*, 108(4), 674-678.



## FIGURE CAPTIONS

Figure 2.1, Conceptual model (Beach, Katz, Kim, & Brody, 2003)

Figure 3.1, Full model

Figure 4.1, Marital satisfaction time-1 confirmatory factor analysis

Figure 4.2, Depression factor structure models time-1 and time-2

Figure 4.3, Full hypothesized conceptual model with standardized path coefficients

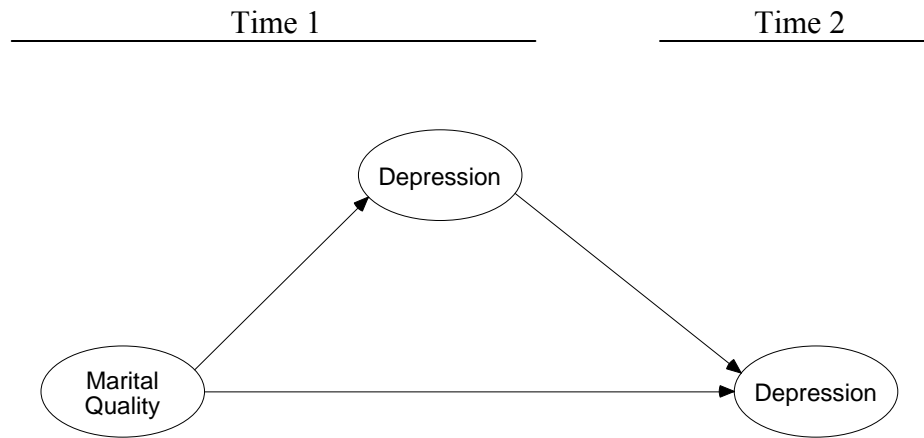


Figure 2.1 Conceptual model (Beach, Katz, Kim, & Brody, 2003)

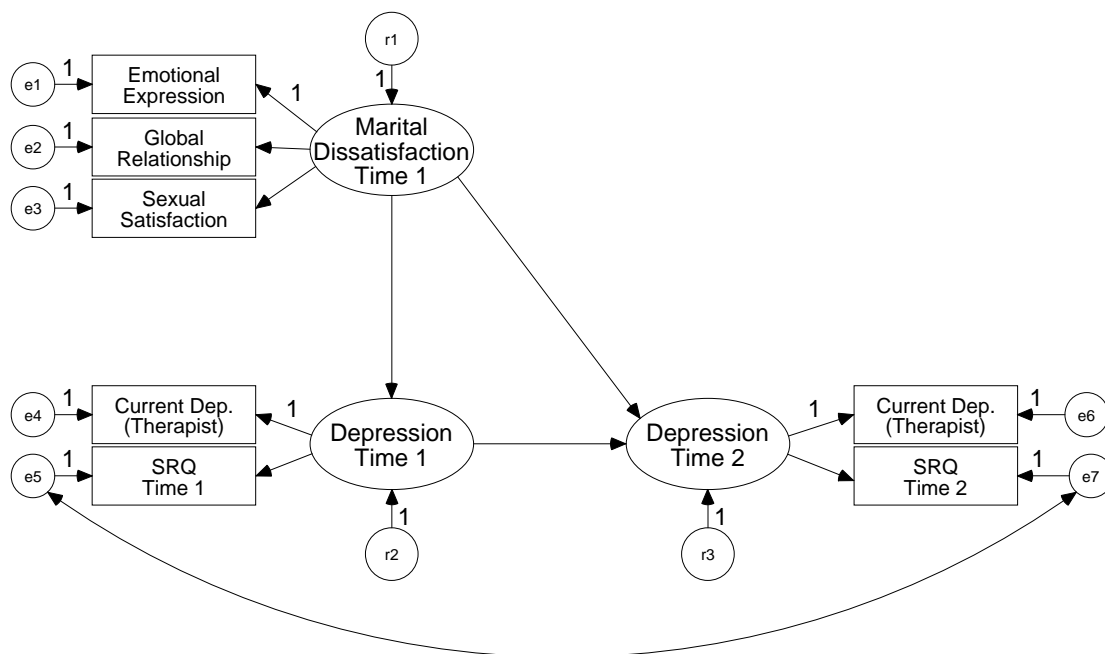


Figure 3.1 Full model

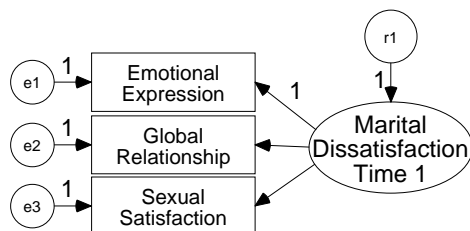


Figure 4.1 Time-1 marital satisfaction confirmatory factor analysis

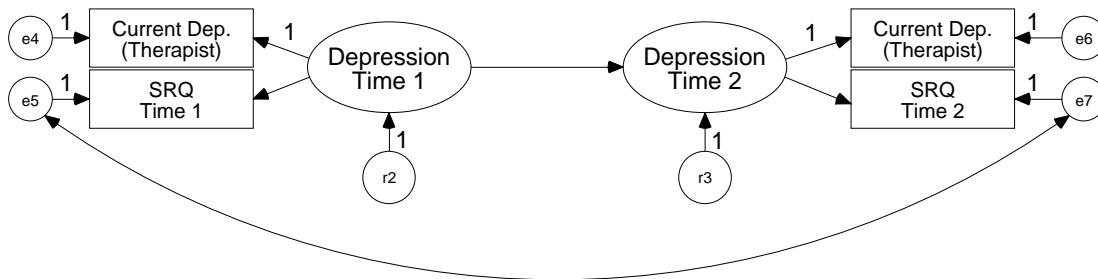


Figure 4.2 Depression factor structure models at time-1 and time-2

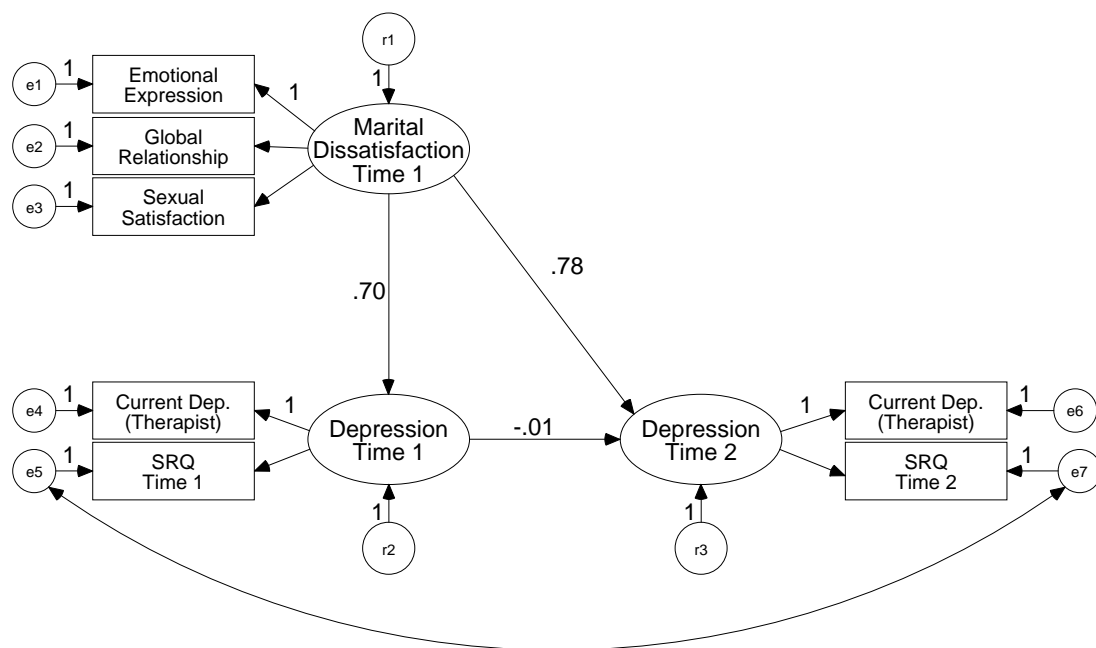


Figure 4.3 Full hypothesized conceptual model with standardized path coefficients

## TABLES

Table 4.1 Regression weights for the full model

(Standard Errors in parentheses; N = 99)

<i>Parameter Estimate</i>	<i>Unstandardized</i>	<i>Standardized</i>	<i>p</i>
Mar qual t1→Depression t1 ***	1.48 (.36)	.70	.000
Depression t1→Depression t2	-.01 (.13)	-.01	.96
Mar qual t1→Depression t2**	.98 (.35)	.78	.005

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ . $\chi^2=4.45$ ,  $p=.93$ ,  $df=10$ ,  $GFI=.99$ ,  $TLI=1.06$ ,  $RMSEA=.000$



APPENDIX A

Portuguese Quotionnaire Time-1

Nome do bebê \_\_\_\_\_ Nome da mãe \_\_\_\_\_ Entrevistador \_\_\_\_\_ N° família |\_\_|\_\_|\_\_|\_\_|

### QUESTIONÁRIO DA MÃE

Converse em particular com a mãe para investigar as seguintes questões:

#### 1. COMO A MÃE ESTÁ PERCEBENDO SEU BEBÊ NESTE MOMENTO

Como é que está o seu bebê? <i>bem (1), com peq. probl (2), com probl. import.(3)</i>	BEBEM	<input type="checkbox"/>
É um bebê: <i>fácil (1), difícil (2), varia (3) não sei (4)</i>	TEMPBM	<input type="checkbox"/>
Como você avalia os comportamentos do seu bebê?		
ATIVIDADE <i>normal (1) muito passivo(2) muito ativo (3)</i>	ATIVBEBM	<input type="checkbox"/>
REATIVIDADE <i>normal (1) pouca (2) excessiva (3)</i>	REATBEBM	<input type="checkbox"/>
FOME <i>normal (1) pouca (2) excessiva (3)</i>	FOMEBEBM	<input type="checkbox"/>
CHORO <i>normal (1) pouco (2) excessivo (3)</i>	CHORBEBM	<input type="checkbox"/>
SONO <i>normal (1) pouco (2) excessivo (3)</i>	SONOBEBM	<input type="checkbox"/>
OUTROS ..... <i>normal (1) pouco (2) excessivo (3)</i>		
Seu bebê já tem rotinas e horários que você consegue prever? <i>sim(1), não(2) não sei(3)</i>	SINCRM	<input type="checkbox"/>

#### 2. RESPONSABILIDADE SOBRE OS CUIDADOS (especialmente importante quando a mãe e o pai não moram na mesma casa)

1. Quem é a pessoa que mais divide com você as responsabilidades de mãe do bebê? <i>pai(1), avóM(2), avóP(3), irmã(4), amiga(5), outro..... (6), responsabilidade materna é exercida por outra pessoa: ..... (7)</i>	RESPMS	<input type="checkbox"/>
2. Nesta gravidez, alguém lhe apoiou especialmente? Quem? <i>pai(1), avóM(2), avóP(3), irmã(4), amiga(5), todos da família (6), outro..... (7)</i>	APOIOG	<input type="checkbox"/>
3. E em suas outras gestações?..... Por quanto tempo lhe ajudou?..... O que aconteceu com essa relação? .....		

#### 3. COMO A MÃE PERCEBEU A GESTAÇÃO

Quando você começou a fazer consultas pré-natais? <i>1º trim.(1), 2º trim.(2), 3º trim.(3)</i>	INPN	<input type="checkbox"/>
Quem a acompanhava na maioria das vezes? <i> você ia só (1) , companheiro (2), mãe (3), irmã (4), amiga (5), variava (6) , outro (7) .....</i>	ACPN	<input type="checkbox"/>
Esta gravidez foi planejada? <i>sim (1) não (2)</i>	PLGRAVM	<input type="checkbox"/>
Quando você engravidou estava usando algum método anticoncepcional? <i>sim (1), às vezes(2), não (3)</i>	ANTCONCM	<input type="checkbox"/>
Qual? .....		
Se foi planejada, você sofreu alguma situação ou perda que relacionou com seu desejo de engravidar? <i>não (1), aborto prévio (2), filho(3), pai(4), mãe (5), irmão (6), outro ..... (7), NSA (8)</i>	PERDM	<input type="checkbox"/>
Você sofreu alguma perda ou trauma importante durante a gravidez? <i>não (1), sim(2)</i>	PERDGM	<input type="checkbox"/>
Qual? ..... Em que mês da gestação? .....		
Se a gravidez não foi planejada houve: <i>aceitação em seguida (1), aceitação a partir do 4º mês (2), não aceitação s/ tentativa de aborto (3), não aceitação c/ tentativa de aborto (4), NSA (8)</i>	ACEITGM	<input type="checkbox"/>
Você já provocou algum aborto? <i>não (1), sim (2)</i>	ABOANTM	<input type="checkbox"/>
Se "sim", quantos? ..... NSA (8)	NABORM	<input type="checkbox"/>
Como você se relacionou com o bebê enquanto ele estava na barriga? (marque com x) <i>acariciava a barriga ( ) ; conversava com ele ( ) ; tinha sonhos com o bebê ( ) , imaginava histórias sobre como seria ( ) , cantava ou ouvia música especial para ele ( ) , sentia-se acompanhada ( ) , não percebia nada especial ( )</i>	RELBARRM	<input type="checkbox"/>
1. muito envolvida 2. envolvida 3. pouco envolvida		
Você tinha preferência por algum sexo para seu bebê? <i>não tinha preferencia (1), coincide (2), não coincide (3)</i>	PRSEXBEM	<input type="checkbox"/>
Quem escolheu o nome do bebê? .....		
Porquê? .....		
No pré-natal quem a orientou a amamentar? <i>médico (1), enfermeiro (2), agente saúde (3), vários profissionais (4), ninguém (5), NSA (8)</i>	ESTAMPNM	<input type="checkbox"/>

## 4. COMO A MÃE PERCEBEU O PARTO

<b>Onde foi o parto?</b> ..... <b>Como foi o parto?</b> <i>normal (1), cesárea (2)</i> <b>Durante o trabalho de parto você ficou:</b> <i>sozinha (1), c/companheiro (2), c/mãe (3), c/outro parente (4), c/amiga (5), c/outro ..... (6)</i> <b>Quem a levou ao hospital?</b> ..... <b>Como foi a experiência do parto para você?</b> <i>fácil(1), difícil, mas boa (2), difícil e sofrida (3)</i> <b>O Bebê ficou com você no quarto no hospital?</b> <i>não (1), nas primeiras 12 horas (2), entre as 13 e 24 horas (3), depois do 1º dia (4), NSA (8). Recebeu alta do hospital com você?</i> <i>sim(1), não(2), NSA (8)</i> <b>Você recebeu informações sobre amamentação na maternidade?</b> <i>sim (1), não(2), NSA (8)</i> <b>Se “sim”, quem deu?</b> <i>médico (1), enfermeiro (2), outro..... (3), NSA (8)</i>	<b>TRABPART</b> <input type="checkbox"/>  <b>EXPPART</b> <input type="checkbox"/> <b>ALOJCONJ</b> <input type="checkbox"/> <b>ALTAB</b> <input type="checkbox"/>
---	--

## 5. COMO ESTÁ A ALIMENTAÇÃO DO BEBÊ

<b>Como você está alimentando o seu bebê?</b> <i>(1) só leite materno, (2) leite materno + água e/ou chá e/ou suco, (3) leite materno + alimentos sólidos ou semi-sólidos, (4) leite materno + outro leite (5) leite materno + outro leite + alimentos sólidos, (6) não está recebendo leite materno</i> <b>Se estiver amamentando: a experiência está sendo:</b> <i>ótima(1), boa(2), regular(3), ruim(4), péssima(5), NSA (8)</i> <b>O que está sendo bom na amamentação?</b> ..... <b>O que está sendo ruim na amamentação?</b> .....	<b>SENTAMAM</b> <input type="checkbox"/>
---	--

## 6. REDE SOCIAL DA MÃE

<b>1. Tem alguém para ajudá-la:</b> <i>sim (1), não (2)</i> <b>Preparando refeições</b> <i>sim (1), não (2)</i> <b>Fazendo compras</b> <i>sim (1), não (2)</i> <b>Cuidando dos outros filhos</b> <i>sim (1), não (2)</i> <b>Consertando coisas na casa</b> <i>sim (1), não (2)</i> <b>Limpando e arrumando a casa</b> <i>sim (1), não (2)</i> <b>Pagando as contas</b> <i>sim (1), não (2)</i> <b>Levando as crianças ao médico se estão doentes</b> <i>sim (1), não (2)</i> <b>2. Com quantas pessoas você pode contar quando sente necessidade?</b> <i>três ou mais (1), duas (2), uma (3), nenhuma (4); Quem são?</i> ..... 1. fam. nuclear, extensiva e outros, 2. fam. nuclear e extensiva, 3. fam. nuclear, 4. só conta c/não fam, 5. não conta com ninguém, 6. fam. nuclear e outros, 7. fam. extensiva e outros <b>3. Você conta com pessoas na vizinhança para cuidar de seu bebê se necessário?</b> <i>sim (1), não (2)</i> <b>4. Você tem pessoas (acima de 14 anos, não incluindo o companheiro) na sua casa ou fora com quem você fala regularmente?</b> <i>sim (1), não (2)</i> <b>Se “sim”, você está satisfeita com essas conversas?</b> <i>sim (1), mais ou menos (2), não (3), NSA (8)</i> <b>Quem tem vindo visitar vocês?</b> <i>irmãos( ), irmãs( ), avós( ), avósp ( ), vizinh ( ), amigos( ), amigosp ( ), familiares ( ), não recebe visitas ( )</i> 1. fam. extensiva e outros, 2. fam. extensiva, 3. só recebe não fam, 4. não recebe ninguém <b>5. Convive com parentes? Com que frequência vocês se vêem/falam/escrivem?</b> <i>3 ou mais vezes por semana(1), de 1 a 2 vezes por seman.(2), menos de 1 vez por seman.(3), nunca(4)</i> <b>Se “sim” a frequência é satisfatória?</b> <i>muito satisf. (1), satisf. (2), algo insatisf.,(3) muito insatisf (4), intolerável (5), NSA (8)</i> <b>6. Em relação à amamentação, qual a pessoa que mais lhe ajuda na amamentação?</b> <i>companheiro(1), mãe(2), sogra(3), irmã(4), amiga(5), outro .....(6), ninguém(7) NSA (8)</i> <b>Seu companheiro a apoia quanto à amamentação?</b> <i>sim, sempre (1) sim às vezes (2) sim, raramente(3), não(4), NSA (8). Como?</i> .....	<b>AJREFM</b> <input type="checkbox"/> <b>AJCOMP</b> <input type="checkbox"/> <b>AJFIM</b> <input type="checkbox"/> <b>AJCONSM</b> <input type="checkbox"/> <b>AJLIMM</b> <input type="checkbox"/> <b>AJCONTM</b> <input type="checkbox"/> <b>AJCUIDM</b> <input type="checkbox"/> <b>NAJIM</b> <input type="checkbox"/> <b>AJM</b> <input type="checkbox"/>  <b>AJVIZM</b> <input type="checkbox"/>  <b>CONVM</b> <input type="checkbox"/> <b>SATCONVM</b> <input type="checkbox"/>  <b>VISM</b> <input type="checkbox"/> <b>FVISPARM</b> <input type="checkbox"/> <b>SATVISM</b> <input type="checkbox"/>  <b>AJAMAM</b> <input type="checkbox"/> <b>AJCAMA</b> <input type="checkbox"/>
<b>7. Você tem descansado o tempo suficiente?</b> <i>sim(1), mais ou menos (2), não(3)</i> <b>8. O que você faz para se distrair ou descansar?</b> <i>sai com o marido ( ), sai com a família ( ), dorme( ), vê TV ( ), baile ( ), futebol ( ), cerveja com amigos ( ), churrasco em casa ( ), visita familiares ( ), brinca com filhos ( ), outra ( ).....</i> envolve família e outros (1), restrito à família (2), restrito a descanso sem interação (3), só envolve outros (4), não descansa (5) <b>9. Você está satisfeita com essa forma de descansar</b> <i>sim (1), mais ou menos (2), não (3)</i>	<b>DESCM</b> <input type="checkbox"/>         <b>SATDESCM</b> <input type="checkbox"/>

## 7. RELACIONAMENTO DO CASAL

1. Como é que você e seu companheiro se dão? <i>bem(1), mais ou menos(2), mal(3), NSA(8)</i>	RELCONJM	<input type="checkbox"/>
2. Você está contente com a maneira como seu companheiro expressa para você o que sente ou pensa? <i>contente (1), mais ou menos (2), não está contente (3), NSA (8)</i>	EXPSENCM	<input type="checkbox"/>
3. Agora a sua satisfação com a relação está igual ou diferente a antes da gravidez? <i>melhor(1), igual(2), pior(3), NSA(8)</i>	QRELCM	<input type="checkbox"/>
4. Como está a vida sexual de vocês? <i>boa, como sempre(1), boa, melhor que antes (2), boa, mas com dificuldades (3), com dificuldades (4), com dificuldades importantes (5), mal (6), desativada (7), NSA (8)</i>	SEXM	<input type="checkbox"/>
5. Está contente com a colaboração do seu companheiro nos cuidados do bebê? <i>sim (1), em parte (2), não (3), NSA (8)</i>	CUIBEBCM	<input type="checkbox"/>
6. Vocês tem discussões freqüentes? <i>não (1), às vezes(2), sim (3), NSA(8)</i>	DISCM	<input type="checkbox"/>
7. Se "sim" só discutem(1), chegam a se bater(2), NSA(8) As brigas estão relacionadas com: <i>uso de álcool (1), drogas (2), ciúmes (3), dinheiro (4), família (5), família(6)</i>	DISCBRM	<input type="checkbox"/>

Entrevistador, indique sua opinião quanto ao RELACIONAMENTO DO CASAL (pontue de 1 a 5): ..... 1. A unidade relacional está funcionando satisfatoriamente segundo o relato dos participantes e a perspectiva dos observadores. 2. Funcionamento da unidade relacional é algo insatisfatório. São resolvidas muitas das dificuldades que ocorrem ao longo do tempo, mas não todas elas. 3. Apesar de haver períodos ocasionais de funcionamento satisfatório e competente das relações, aquelas disfuncionais e insatisfatórias tendem a prevalecer. 4. A unidade relacional é óbvia e seriamente disfuncional. Períodos de relacionamento satisfatório são raros. 5. A unidade relacional tornou-se excessivamente disfuncional para garantir a continuidade de contato e ligação. 6. Não chegou a se constituir o casal	RELCASE1	<input type="checkbox"/>
--	----------	--------------------------

## 8. RELACIONAMENTO COM A FAMÍLIA DE ORIGEM

1. Como você está se dando com sua mãe agora? <i>ótimo (1), bom (2), razoável (3), regular (4), ruim (5), NSA (8). Descreva .....</i> ..... Ela lhe incentiva (ou) a amamentar? <i>sim, muito(1), sim, um pouco(2), é ambivalente(3), não(4), não lembra (5), NSA (8). E ao pai? ? sim, muito(1), sim, um pouco(2), é ambivalente (3), não(4), não lembra (5), NSA (8)</i> Com que freqüência vocês se vêem/falam/escrevem? <i>3 ou mais vezes por semana (1), de 1 a 2 vezes por seman.(2), menos de 1 vez por seman.(3), nunca (4), NSA(8)</i> Como você acha que seu companheiro se dá com a sua mãe? <i>ótimo (1), bom (2), razoável (3), regular (4), ruim (5), NSA (8).</i> Como você acha que seu companheiro se dá com a mãe dele? <i>ótimo (1), bom (2), razoável (3), regular (4), ruim (5), não sabe(6), não tem companheiro (7), NSA (8).</i> Sua sogra (ou substituta) a incentiva(ou) a amamentar? <i>sim, muito(1), sim, um pouco(2), é ambivalente(3), não(4), não lembra (5), NSA (8)</i>	RELMM	<input type="checkbox"/>
2. Como você acha que sua mãe cuidou de você quando você era bebê? <i>ótimo (1), bom (2), razoável (3), regular (4), ruim (5), não sabe (6), NSA (8).</i> Ela a amamentou? <i>sim(1), não(2), não sabe(3), NSA (8). Se "sim", quanto tempo? .....</i> .....meses, não lembra (7), NSA (8)	MESTAMAM MMESAMAP	<input type="checkbox"/> <input type="checkbox"/>
3. Como você está se dando com seu pai agora? <i>ótimo (1), bom (2), razoável (3), regular (4), ruim (5), NSA (8). Descreva: .....</i> ..... Ele a incentivou a amamentar? <i>sim, muito(1), sim, um pouco(2), é ambivalente(3), não(4), não lembra (5), NSA (8)</i> Ele incentivou seu companheiro a incentivá-la? <i>sim, muito(1), sim, um pouco(2), é ambivalente(3), não lembra (5), NSA (8)</i> Com que freqüência vocês se vêem/falam/escrevem? <i>3 ou mais vezes por semana (1), de 1 a 2 vezes por seman.(2), menos de 1 vez por seman.(3), nunca (4), NSA(8)</i> Como você acha que seu companheiro se dá com o seu pai? <i>ótimo (1), bom (2), razoável (3), regular (4), ruim (5), NSA (8)</i> Como você acha que seu companheiro se dá com o pai dele? <i>ótimo (1), bom (2), razoável (3), regular (4), ruim (5), não sabe(6), não tem companheiro (7), NSA (8)</i> Seu sogro a incentiva(ou) a amamentar? <i>sim, muito (1), sim, um pouco(2), é ambivalente (3), não (4), não lembra (5), NSA (8)</i>	SOGESAMM MCUIDM AMM TAMM	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
4. Como você acha que seu pai a cuidou quando você era bebê? <i>ótimo (1), bom (2), razoável (3), regular (4), ruim (5), não sabe (6), NSA (8)</i>	RELPM	<input type="checkbox"/>
5. Se há problemas ou distância na relação com os pais, esses fatos são justificáveis e perdoáveis	PESTAMAM PMESCAMP	<input type="checkbox"/> <input type="checkbox"/>
	SOGROESM	<input type="checkbox"/>
4. Como você acha que seu pai a cuidou quando você era bebê? <i>ótimo (1), bom (2), razoável (3), regular (4), ruim (5), não sabe (6), NSA (8)</i>	PCUIDM	<input type="checkbox"/>
5. Se há problemas ou distância na relação com os pais, esses fatos são justificáveis e perdoáveis	COERELFM	<input type="checkbox"/>

para você? já perdeu(1), tem dificuldades(2), não perdoa(3), não vê problemas(4), NSA (8). Comente: .....	
Existe alguma pessoa com quem você considera que a relação está rompida e com quem não vê a possibilidade de reaproximação? não(1), sim (2), Quem? ..... Porque? .....	RUPFM <input type="checkbox"/>
6. Se a família de origem está ausente, há outras pessoas que substituem a família para você, em especial sua mãe? sim, bem(1), sim, pouco(2), não(3), NSA (8). Quem são? .....	SUBFM <input type="checkbox"/>
Eles também a sentem como filha/irmã? sim (1), não (2), não sei (3), NSA (8)	
7. Em relação aos amigos e parentes, você se sente predominantemente isolada ou apoiada? Dê uma nota de 1 a 10: .....	REDESOCM <input type="checkbox"/>

Entrevistador, indique sua opinião Quanto a relação com a FAMÍLIA DE ORIGEM ou substituta (pontue de 1 a 5): M ..... P .....	FAMORME1 <input type="checkbox"/>
Com a família de origem como um todo	FAMORPE1 <input type="checkbox"/>
1. As relações são satisfatórias segundo relato dos entrevistados e impressão dos entrevistadores.	
2. As relações são algo insatisfatórias.	
3. Apesar de haver períodos ocasionais de relações satisfatórias, predominam as relações disfuncionais e insatisfatórias.	
4. As relações são óbvia e seriamente disfuncionais. Períodos de relações satisfatórias são raros.	
5. Não há condições de manter a continuidade de ligação e contato.	

### 9. RESILIÊNCIA

1. Que fatores podem estar atrapalhando a qualidade de vida de vocês? falta de dinheiro ( ), falta de espaço( ), excesso de trabalho ( ), os outros filhos ( ), companheiro ( ), emprego ( ), outro ( ) .....	ATRAPM <input type="checkbox"/>
não tem (1), tem 1 ou 2 problemas (2), tem mais de 2 problemas (3), não consegue identificar (4)	
2. O que lhe dá força de viver e lutar nas situações difíceis da vida? atribui à rede social ( ), à família ( ), aos filhos ( ), ao companheiro ( ), à força pessoal ( ), a seres superiores ( ), outro( ) .....	FORÇAM <input type="checkbox"/>
identifica duas ou mais fontes (1), identifica uma fonte (2), não identifica (3)	
3. Você tem algum sonho especial na vida que gostaria de nos contar? .....	
.....	

Entrevistador, indique sua opinião Quanto a relação com a REDE SOCIAL (pontue de 1 a 5): M ..... P .....	RESOME1 <input type="checkbox"/>
Eficácia = apoio traduzido por ações necessárias + satisfação de quem recebe	RESOPE1 <input type="checkbox"/>
1. A rede social é rica (A. quanto ao número de contatos, B. heterogeneidade, C. qualidade das relações e D. participação efetiva no apoio à família do bebê) e o entrevistado relata satisfação.	
2. O entrevistado relata satisfação ou leve insatisfação (mas o entrevistador considera a rede social pobre em alguma de suas características). Citar a letra correspondente conforme o entrevistado ..... e o entrevistador .....	
3. O entrevistado relata insatisfação moderada com relação a uma ou mais das suas características (citar as letras correspondentes, segundo o entrevistado ..... segundo o entrevistador .....	
4. O entrevistado relata insatisfação grave em relação à sua rede social (citar as características identificadas pelo entrevistado e/ou entrevistador como insatisfatórias .....	
5. O contato com a rede social está intolerável, tornando o contato insustentável.	

### 10. CARACTERÍSTICAS PSICOLÓGICAS DA MÃE

1. Tem-se sentido bem ou tem estado triste ou ansiosa após o nascimento do bebê? bem(1), triste(2), ansiosa(3), triste e ansiosa(4)	ANIMM <input type="checkbox"/>
E antes do nascimento do bebê? bem(1), triste(2), ansiosa(3), triste e ansiosa(4)	ANIMGRM <input type="checkbox"/>
Dê uma nota para seu estado de ânimo atual (de 1 a 10) .....	NOTANIM <input type="checkbox"/>

**(PREENCHER ESCALA SRQ)**

1	Você tem dores de cabeça freqüentes?	sim	não
2	Tem falta de apetite?	sim	não
3	Dorme mal?	sim	não
4	Fica com medo com facilidade?	sim	não
5	Suas mãos tremem?	sim	não
6	Se sente nervoso, tenso ou preocupado?	sim	não
7	Tem problema digestivo?	sim	não
8	Acha difícil pensar com clareza?	sim	não
9	Sente-se infeliz?	sim	não
10	Chora mais que o comum?	sim	não
11	Acha difícil gostar de suas atividades diárias?	sim	não
12	Acha difícil tomar decisões?	sim	não
13	Seu trabalho diário é um tormento?	sim	não
14	Acha que é capaz de ter um papel útil na vida?	sim	não
15	Perdeu interesse pelas coisas?	sim	não
16	Acha que é uma pessoa que não vale nada?	sim	não
17	O pensamento de acabar com a vida já passou por sua cabeça?	sim	não
18	Sente-se cansada o tempo todo?	sim	não
19	Tem sensações desagradáveis no estômago?	sim	não
20	Fica cansada com facilidade?	sim	não
		SRQM	<input type="checkbox"/>

<b>2.</b>	<b>Bebe? não (1), duvidoso (2), sim (3). Tem dificuldade de controlar a quantidade de bebida? não (1), sim (2)</b>	<b>ALCM</b>	<input type="checkbox"/>
	<b>E no passado? não (1), sim (2). Quando? .....</b>	<b>ALCPASM</b>	<input type="checkbox"/>
	<b>E seu companheiro bebe? não (1), sim (2), NSA (8). Tem dificuldade de controlar a quantidade de bebida? não (1), sim (2), NSA (8)</b>	<b>ALCCM</b>	<input type="checkbox"/>
	<b>E no passado? não (1), não sei (2), sim (3), NSA (8). Quando? .....</b>	<b>ALCPASC</b>	<input type="checkbox"/>

<b>3.</b>	<b>Fuma? não (1), sim (2). Quanto costuma fumar? ..... cigarros/dia.</b>	<b>FUMM</b>	<input type="checkbox"/>
	<b>E no passado? não (1). Sim (2)</b>	<b>FUMPASM</b>	<input type="checkbox"/>
	<b>Quando? ..... Quanto costumava fumar? ..... cigarros/dia</b>	<b>FUMCM</b>	<input type="checkbox"/>
	<b>E seu companheiro fuma? não (1), sim (2), NSA (8)</b>	<b>FUMCM</b>	<input type="checkbox"/>
	<b>Quanto costuma fumar? ..... cigarros/dia.</b>	<b>FUMCM</b>	<input type="checkbox"/>
	<b>E no passado? não (1), não sei (2), sim (3), NSA (8)</b>	<b>FUMPASC</b>	<input type="checkbox"/>
	<b>Quando? ..... Quanto costumava fumar? ..... cigarros/dia</b>	<b>FUMPASC</b>	<input type="checkbox"/>

<b>4.</b>	<b>Toma algum remédio habitualmente? não (1), sim (2). Qual? .....</b>	<b>REMM</b>	<input type="checkbox"/>
	<b>E seu companheiro? não (1), sim (2), NSA (8). Qual? .....</b>	<b>RECM</b>	<input type="checkbox"/>
	<b>Que remédios tomou durante a gestação? .....</b>	<b>REGRM</b>	<input type="checkbox"/>

<b>5.</b>	<b>Usa drogas? não(1), maconha(2), cocaína(3), cola (4), medic. para emagrecer(5), medic. para dormir (6), combinação (7), duvidoso (8)</b>	<b>DROGM</b>	<input type="checkbox"/>
	<b>Como? ..... Com que freqüência? .....</b>	<b>DROGM</b>	<input type="checkbox"/>
	<b>E no passado? não(1), não sei(2), maconha(3), cocaína(4), cola (5), medic. para emagrecer(6), medic. para dormir (7), combinação (8), duvidoso (9)</b>	<b>DROGPASM</b>	<input type="checkbox"/>
	<b>Quando? .....</b>	<b>DROGPASM</b>	<input type="checkbox"/>
	<b>Como? ..... Com que freqüência? .....</b>	<b>DROGCM</b>	<input type="checkbox"/>
	<b>E seu companheiro usa drogas? não(1), maconha(2), cocaína(3), cola (4), medic. para emagrecer(5), medic. para dormir (6), combinação (7), duvidoso (8), NSA (88).</b>	<b>DROGCM</b>	<input type="checkbox"/>
	<b>Como? .....</b>	<b>DROGCM</b>	<input type="checkbox"/>
	<b>E no passado? não(1), não sei(2), maconha(3), cocaína(4), cola (5), medic. para emagrecer(6), medic. para dormir (7), combinação (8), duvidoso (9)</b>	<b>DROPASC</b>	<input type="checkbox"/>
	<b>Quando? .....</b>	<b>DROPASC</b>	<input type="checkbox"/>
	<b>Como? .....</b>	<b>DROPASC</b>	<input type="checkbox"/>
	<b>Como? ..... Com que freqüência? .....</b>	<b>DROPASC</b>	<input type="checkbox"/>

<p><b>6. Já teve problema dos nervos?</b> <i>não (1), sim (2)</i>  <b>Recebeu medicação?</b> <i>não (1), sim (2), NSA (8)</i>  <b>Qual?</b>..... <b>Por quanto tempo?</b>.....  <b>E seu companheiro já teve problema dos nervos?</b> <i>não (1), sim (2), NSA (8)</i>  <b>Recebeu medicação?</b> <i>não (1), sim (2), NSA (8)</i>  <b>Qual?</b>..... <b>Por quanto tempo?</b>.....  <b>Você já teve baixa por esta razão?</b> <i>não (1), sim (2), NSA (8)</i>  <b>Onde?</b>..... <b>Quanto tempo?</b>.....  <b>Foi medicada?</b> <i>não (1), sim (2), NSA (8)</i>  <b>Continuou psicoterapia?</b> <i>não (1), sim (2), NSA (8)</i>  <b>Está em psicoterapia atualmente?</b> <i>não (1), sim (2), NSA (8)</i>  <b>E seu companheiro já teve baixa por esta razão?</b> <i>não (1), não sei (2), sim (3), NSA (8)</i>  <b>Onde?</b>..... <b>Quanto tempo?</b>.....  <b>Foi medicado?</b> <i>não(1), não sei (2), sim (3), NSA (8).</i> <b>Continuou psicoterapia?</b> <i>não (1), não sei(2), sim(3), NSA (8)</i>  <b>Está em psicoterapia atualmente?</b> <i>não (1), sim (2), NSA (8)</i></p>	<p><b>PSIQM</b> <input type="checkbox"/></p> <p><b>MEDPSIM</b> <input type="checkbox"/></p> <p><b>PSIQCM</b> <input type="checkbox"/></p> <p><b>MEDPSICM</b> <input type="checkbox"/></p> <p><b>HOSPPSIM</b> <input type="checkbox"/></p> <p><b>PSICM</b> <input type="checkbox"/></p>
<p><b>7. Tem algum problema de saúde atualmente?</b> <i>não (1), sim (2)</i>  <b>Qual?</b>.....  <b>Esse problema dificulta o cuidado do bebê ?</b> <i>não (1), sim (2), NSA (8)</i>  <b>Como?</b>.....  <b>E seu companheiro tem algum problema de saúde atualmente?</b> <i>não(1), sim(2), NSA(8)</i>  <b>Qual?</b>.....  <b>Esse problema dificulta o cuidado do bebê ?</b> <i>não (1), sim (2), NSA (8)</i>  <b>Como?</b>.....</p>	<p><b>PRSAUM</b> <input type="checkbox"/></p> <p><b>PRCUIBEM</b> <input type="checkbox"/></p> <p><b>PRSAUCM</b> <input type="checkbox"/></p> <p><b>PRCUBECM</b> <input type="checkbox"/></p>
<p><b>8. Já perdeu algum filho por morte?</b> <i>não (1) sim (2)</i> <b>Que idade ele tinha?</b>.....  (1) período neo-natal, (2) menos de 1 ano, (3) pré-escolar, (4) escolar, (5) adolescente  <b>Qual a causa?</b> <i>doença congênita (1), prematuridade (2), infecção (3), outros.....(4), NSA (8)</i>  <b>Tem algum filho que está sendo criado por outra pessoa?</b> <i>não (1), sim, um (2), sim, mais de um(3)</i>  (1) período neo-natal, (2) menos de 1 ano, (3) pré-escolar, (4) escolar, (5) adolescente  <b>Qual a sua idade?</b>..... <b>Nome e cuidador:</b>.....  <b>Motivo:</b>..... <i>NSA (8)</i></p>	<p><b>MORTFILM</b> <input type="checkbox"/></p> <p><b>IDMORFIM</b> <input type="checkbox"/></p> <p><b>FCUI2M</b> <input type="checkbox"/></p> <p><b>IFCUI2M</b> <input type="checkbox"/></p> <p><b>IFCUI3M</b> <input type="checkbox"/></p> <p><b>IFCUI4M</b> <input type="checkbox"/></p>
<p><b>9. Já teve algum problema com a Justiça?</b> <i>não (1), sim (2)</i>  <b>De que tipo?</b>..... <b>Quando?</b>.....  <b>E seu companheiro já teve algum problema com a Justiça?</b> <i>não (1), não sei (2), sim (3), NSA (8)</i>  <b>De que tipo?</b>..... <b>Quando?</b>.....</p>	<p><b>PROBLEGM</b> <input type="checkbox"/></p> <p><b>PROBLGCM</b> <input type="checkbox"/></p>
<b>11. RELAÇÃO COM O POSTO DE SAÚDE</b>	
<p><b>O que você acha do Posto de Saúde?</b>.....  (1) ótimo (utiliza e o tem como referência para ajudar em todas as áreas), (2) bom (utiliza quando alguém está doente (consulta) e estou satisfeita), (3) mais ou menos (utiliza e a satisfação varia), (4) ruim (utiliza só quando não há outro recurso porque não é muito satisfatório), (5) não utiliza.  <b>Alguém a acompanha nas visitas?</b> <i>sim (1), às vezes (2), não (3)</i> <b>Quem?</b>.....  <b>Com que frequência você tem utilizado o Posto?</b>.....  <b>Alguém tem lhe orientado quanto à amamentação?</b> <i>sim (1) não (2)</i>  <b>Se “sim”, quem?</b> <i>médico (1), enfermeiro (2), auxiliar (3), todos (4), NSA (8)</i>  <b>Qual a orientação?</b>.....</p>	<p><b>SATPSAUM</b> <input type="checkbox"/></p> <p><b>ESTAMPOM</b> <input type="checkbox"/></p> <p><b>QUESTPOM</b> <input type="checkbox"/></p>
<p><b>Se o bebê freqüenta CRECHE. Na sua opinião, como estão as condições de espaço, higiene e alimentação?</b> <i>muito boas(1), boas(2), mais ou menos(3), sofríveis(4), péssimas (5), NSA (8)</i></p>	<p><b>CONDCRE</b> <input type="checkbox"/></p>

AS SEGUINTE PERGUNTAS NÃO DEVEM SER DIRIGIDAS À MÃE. SUAS RESPOSTAS SÃO CONCLUSÃO DO ENTREVISTADOR

<p><b>O bebê foi gerado para manter os pais unidos?</b> <i>não (1), talvez (2), sim (3)</i>          (“sim”, se os pais estavam separados ou em processo de separação antes da gestação).</p>	<p><b>BEBUNIE1</b> <input type="checkbox"/></p>
<p><b>Há evidências de negligência física no bebê?</b> <i>não (1), talvez (2), sim (3)</i>          (“sim”, se está emagrecido, apresenta infecção que não está sendo cuidada, passa muito tempo sem mudar de fraldas – com evidências de assadura - se seu berço está em local inapropriado por ser insalubre, se está sujo ou com roupas sujas, vestido inadequadamente).</p>	<p><b>NEGFBE1</b> <input type="checkbox"/></p>
<p><b>Há evidências de negligência emocional no bebê?</b> <i>não (1), talvez (2), sim (3)</i>          (“sim”, se seu berço fica num lugar que dificulta o acesso dos cuidadores, se estes não respondem ao choro, se não seguram o bebê apropriadamente ao alimentá-lo, se não falam com ele).</p>	<p><b>NEGEBE1</b> <input type="checkbox"/></p>
<p><b>Se “sim”, quais são os cuidadores negligentes?</b> <i>mãe(1), pai (2), irmão (3), avó(4), avós de um (5) outro(6).....mais de um(7), NSA (8).</i></p>	<p><b>CUINEGE1</b> <input type="checkbox"/></p>
<p><b>Entrevistador, indique sua opinião quanto a SAÚDE MENTAL da mãe (pontue de 1 a 5): .....</b>          No momento da entrevista (nas duas últimas semanas) .....; no puerpério .....; no passado.....</p> <ol style="list-style-type: none"> <li>1. Não há evidências de dificuldades.</li> <li>2. Aparecem dificuldades leves (depressão, ansiedade) que não perturbam as relações ou a vida diária e não comprometem sua auto-estima.</li> <li>3. Aparecem dificuldades moderadas (depressão, ansiedade, irritação) que causam leve transtorno no dia-a-dia e comprometem sua auto-estima.</li> <li>4. Aparecem dificuldades importantes que afetam moderadamente o dia-a-dia e as relações.</li> <li>5. Aparecem dificuldades graves que afetam gravemente o dia-a-dia e as relações.</li> </ol>	<p><b>SMMPR</b> <input type="checkbox"/>  <b>SMMPU</b> <input type="checkbox"/>  <b>SMPAS</b> <input type="checkbox"/></p>
<p>Faça um relato sumário de sua impressão sobre a saúde mental da mãe no presente e no passado. Se necessário, inclua sua impressão diagnóstica.</p>	
<p><b>Na opinião do entrevistador:</b>  <b>Grau de resiliência da família:</b> ótimo (1), bom (2), regular (3), insuficiente (4)  <b>Envolvimento do pai no atendimento do bebê:</b>  <b>pai se envolve ativamente (1), pai apóia mas não participa (2), pai emocionalmente ausente ainda quedenro de casa (3), pai atrapalha os cuidados, mas está na casa (4), pai fisicamente ausente (5)</b>  <b>Envolvimento da avó mais próxima</b> avóm (1) avóp(2) NSA (8)..... .. <b>nos cuidados do bebê:</b> avó se envolve ativamente (cuida pelos menos um turno, 1 vez por semana)(1), avó se envolve ativamente, mora na casa (2), avó se envolve ativamente, mora no pátio (3), avó apoia, mas não participa (4), avó apoia pouco (5), avó não apoia (6), NSA (8)</p>	<p><b>RESFE1</b> <input type="checkbox"/>  <b>ENVPE1</b> <input type="checkbox"/>    <b>ENVAVÓE1</b> <input type="checkbox"/>  <b>QENVAVE1</b> <input type="checkbox"/></p>



APPENDIX B

Portugues Questionnaire Time-2





21. Como a Sra. está se dando com sua mãe agora? bem(1), com dificuldades(2), morreu(3), não tem contato(4), não conheceu(5). Descreva \_\_\_\_\_

RELM | | | |

Como a Sra. está se dando com seu pai agora? bem(1), com dificultd.(2), morreu(3), não tem contato(4), não conheceu(5). Descreva \_\_\_\_\_

RELP | | | |

Como está sua relação com as outras pessoas da família? ótimo(1), bom(2), razoável(3), regular(4), ruim(5), NSA(88). Descreva: \_\_\_\_\_

RELFO | | | |

Se não há convivência com sua própria família, quem a apoia? família mais distante(1) família do companheiro(2), amigos(3), vizinhos(4), não tem quem apoie(5), NSA (88)

APOIO | | | |

22. Tem-se sentido bem ou tem estado triste ou ansiosa no último mês? bem(1), triste(2), ansiosa(3), triste e ansiosa(4)

ANIMPR | | | |

#### Escala SRQ

1	A Sra. tem dores de cabeça freqüentes?	sim	não
2	Tem falta de apetite?	sim	não
3	Dorme mal?	sim	não
4	Fica com medo com facilidade?	sim	não
5	Suas mãos tremem?	sim	não
6	Se sente nervoso, tenso ou preocupado?	sim	não
7	Tem problema digestivo?	sim	não
8	Acha difícil pensar com clareza?	sim	não
9	Sente-se infeliz?	sim	não
10	Chora mais que o comum?	sim	não
11	Acha difícil gostar de suas atividades diárias?	sim	não
12	Acha difícil tomar decisões?	sim	não
13	Seu trabalho diário é um tormento?	sim	não
14	Acha que é capaz de ter um papel útil na vida?	sim	não
15	Perdeu interesse pelas coisas?	sim	não
16	Acha que é uma pessoa que não vale nada?	sim	não
17	O pensamento de acabar com a vida já passou por sua cabeça?	sim	não
18	Sente-se cansada o tempo todo?	sim	não
19	Tem sensações desagradáveis no estômago?	sim	não
20	Fica cansada com facilidade?	sim	não

SRQM | | | |

23. Tem tido dificuldade de controlar a quantidade de bebida? não (1), sim (2)

Quanto costuma fumar? \_\_\_\_\_ cigarros/dia

Está tomando algum remédio habitualmente? não(1), sim(2). Qual? \_\_\_\_\_

Tem usado drogas? não(1), maconha(2), cocaína(3), cola(4), medic. para emagrecer(5), medic. para dormir(6), combinação(7), duvidoso(8)

O pai tem tido dificuldades emocionais? não(1), sim(2). E com álcool ou drogas? não(1), álcool(2), maconha(3), cocaína(4), cola (5), medic. para emagrecer(6), medic. para dormir(7), combinação(8), duvidoso(9)

ALCM | | | |

FUM | | | |

REM | | | |

DROGM | | | |

ANIMC | | | |

ALCDROGC | | | |

| | | |

24. Em relação àquela época você acha que seu estado de ânimo hoje está: igual(2), melhor(1), pior(3) O que mudou na sua família desde o nascimento da criança?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

ANIM | | | |

25. A Sra. teve algum problema de saúde ou de nervos desde o nascimento da criança

Presença de problema de saúde: sim(1) não (2).

Problema: \_\_\_\_\_ Quando? \_\_\_\_\_

Fez tratamento regular? sim ( ) não ( ) Hospitalização? sim ( ) não ( )

Problema: \_\_\_\_\_ Quando? \_\_\_\_\_

Fez tratamento regular? sim ( ) não ( ) Hospitalização? sim ( ) não ( )

Problema: \_\_\_\_\_ Quando? \_\_\_\_\_

Fez tratamento regular? sim ( ) não ( ) Hospitalização? sim ( ) não ( )

Problema: \_\_\_\_\_ Quando? \_\_\_\_\_

Fez tratamento regular? sim ( ) não ( ) Hospitalização? sim ( ) não ( ) NSA(88)

1.nervos, 2.ginecológico 3.gástrico 4.respiratório 5.renal 6.outros 7.mais de um problema

Aplicar Beck na mãe

PRSAUM | | | |

TPRSAUM | | | |

BECK | | | |

26. Dar papel e lápis para a criança ver se desenha um círculo sim(1), não(2)

DESCIRC | | | |

27. Impressões do entrevistador a respeito da criança

a) Interação com examinador

normal (1) alterada (2)

b) Atividade

normal (1) alterada (2)

c) Atenção

normal (1) alterada (2)

d) Conduta

normal (1) alterada (2)

e) O desenvolvimento geral parece

normal (1) alterada (2)

f) O exame é simétrico: (ver ao caminhar, engatinhar, movimentar-se, pegar coisas ou fazer as manobras)

sim (1) não(2), porque?

g) Audição parece normal?

sim (1) não(2), porque?

h) Olhos e visão parecem normais?

sim (1) não(2), porque?

i) Os membros inferiores, pés, membros superiores, mãos, coluna, parecem normais?

sim (1) não(2), porque?

outras alterações: \_\_\_\_\_

INTEREN | | | |

ATIVIEN | | | |

ATENEN | | | |

CONDEN | | | |

DESEGEN | | | |

EXSIMEN | | | |

AUDIEN | | | |

OLVISEN | | | |

MEMBEN | | | |

**CONCLUSÕES DOS ENTREVISTADORES (POR CONSENSO)**

Vocês consideraram as informações: fidedignas (1), com algumas informações question. (2), com muitas informações question. (3)

Vocês suspeitam de alguma alteração no desenvolvimento da criança?

Físico: sim(1) não(2)

Motor: sim(1) não(2)

Social: sim(1) não(2)

Cognitivo: sim(1) não(2)

Identidade de gênero da criança: bem estabelecida(1), indefinida(2), não foi possível avaliar(3)

Suas impressões sobre a mãe:

Saúde física: bem(1), mais ou menos(2), mal(3)

Saúde mental: bem(1), mais ou menos(2), mal(3)

Se viram problemas, descrevam: \_\_\_\_\_

Relação mãe-bebê bem(1), mais ou menos(2), mal(3)

Se viram problemas, descrevam: \_\_\_\_\_

**A partir das informações vocês pensam que:**

O casal se dá: bem(1), mais ou menos(2), mal(3), NSA (88)

Há brigas frequentes? sim(1) não(2), NSA (88)

Se há problemas pode haver violência? sim(1) não(2), NSA (88)

A relação com a família de origem é: boa(1), mais ou menos(2), ruim(3)

**Não necessitou encaminhamento(1), necessitou encaminhamento (2), já está em tratamento(3)**

COERINF	
DESFIEN	
DESMOEN	
DESCOEN	
DESCOEN	
IDGENEN	
SFISMEN	
SMENMEN	
RELMBEN	
RELCASEN	
BRICASEN	
VIOCASEN	
RELFOEN	
ENCAM	