Factors Predicting Maternal Stress in Mothers with Infants

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Maternal stress has been linked to psychological well-being and a greater likelihood of poor adjustment for both mother and child. Furthermore, higher levels of stress were predicted for mothers with a perception of limited partner support and/or low frustration tolerance. Sixty-one mothers of infants that were contacted via mail completed the Survey of Personal Beliefs (SPB; Kassinove, 1986), the Parenting Stress Index (PSI; Abidin, 1983), and a measure of partner support. A simultaneous regression analysis found that limited partner support and low frustration tolerance, when taken together, significantly predict maternal stress, although low frustration tolerance accounted for most of the variance found in a stepwise prediction method. Thus, these variables should be emphasized in cognitive-behavioral interventions aimed at reducing maternal stress in mothers of infants.

Parenting stress significantly impacts both a child's emotional and behavioral development as well as the parent's well-being, particularly during the early years, when young children spend the majority of time interacting with parents at home (Abidin, 1995). Specifically, research has shown that maternal stress has been linked to psychological health, potential for abuse, and a greater likelihood of poor adjustment for both parent and child (Walker, 2002). Previous research in the area of parental stress suggests that parents with more irrational beliefs and a perception of limited partner support have higher levels of emotional stress (e.g., Joyce, 1995; Ohr, Vidair, Hoag, and Vargas, 2003a; Ohr, Vidair, Hoag, and Vargas, 2003b).

Several researchers studying various populations have linked irrational beliefs and emotional stress (i.e., Joyce, 1995; Moller, Rabe, & Nortje, 2001; Stebbins & Pakenham, 2001; Smith, 1982; Smith, 1983). For example, irrational thoughts and stressful emotions have shown to be correlated (e.g., ranging from r = .23 to .87) among people ranging from those in nonclinical, community samples experiencing marital conflict (e.g. Moller, Rabe, & Nortje, 2001), to caregivers of traumatic brain injury (Stebbins & Pakenham, 2001), to those in psychiatric settings (Jacobsen, Tamkin, &

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Blount, 1987). Although the relationship between irrational beliefs and emotional stress has been studied within many types of samples, it has not been widely studied among parents.

Joyce (1990) proposed that Ellis' (1962) ABC model might be used to understand how a parent's irrational beliefs mediate the relationship between events the parent experiences and his or her feelings and behaviors. For example, a child's behavior can be an antecedent (the "A") or activating event for their parent's negative feelings and behaviors, which are called the consequences (the "C"). The ABC model emphasizes that the parent's rational and irrational beliefs (the "B"), engender such consequences. According to this model, the parent can learn to dispute irrational thoughts in order to reduce emotional stress and improve their parenting skills, thus benefiting both themselves and his or her child.

According to Joyce (1990), Rational Emotive Behavior Therapy (REBT) proposes that parents' irrational beliefs concerning both themselves and their parenting skills foster self-defeating and inappropriate stressful emotions, which can hinder parenting skills such as problem-solving and disciplinary strategies, influence negative emotions such as anxiety or anger in their child, and ultimately harm the parent-child relationship. Based on these ideas, Joyce (1995) studied a variety of irrational beliefs and emotional stressors in 48 parents of school-aged children and developed a parenting program aimed at reducing parental stress.

Joyce (1995) studied low frustration tolerance, one of REBT's core irrational beliefs. This belief can be characterized as, "the person's perceived inability to withstand the discomfort of an activating event," for example, "I can't stand it" (Walen et al., 1992, p. 129). Low frustration tolerance is considered an "evaluative belief," which REBT considers to be one of the main beliefs associated with emotional disturbances (p. 127).

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Joyce (1995) measured low frustration tolerance with a version of Berger's 1993 Beliefs Scale which she had revised, and found that parents reporting more low frustration tolerance specifically related to parenting expressed more stressful negative emotions, including anxiety, self-downing, guilt, anger, discomfort, and lower well-being.

Joyce (1995) then demonstrated that a nine-week rational-emotive parenting program reduced parents' irrationality as compared to a waitlist control group, with effects being strongest for low frustration tolerance irrationality. These results were maintained almost identically at a 10-month follow-up period, lending some support to the theory that parents can be taught to reduce low frustration tolerance in order to feel less stressed, and, theoretically, improve their parenting ability.

Ohr, Vidair, Hoag, and Vargas (2003a) sought to further establish a link between irrational beliefs and maternal stress in mothers of young children, as measured by The Survey of Personal Beliefs (SPB: Kassinove, 1986) and the Parent Domain of the Parenting Stress Inventory (PSI; Abidin, 1986), respectively. As other measures of irrational beliefs may have been confounded with emotional stress, the SPB was utilized (e.g. Smith, 1982; Chang & Bridewell, 1998). For example, irrational statements have included an affective word on some questionnaires claiming to only measure irrational beliefs (Demaria, Kassinove, & Dill, 1989). The SPB avoids this issue by focusing items on cognitions rather than emotions.

In Ohr et al.'s (2003a) study, mothers were contacted via mail using a mailing list of recent births in a Northeastern suburb of a major metropolitan area. Correlational analysis of data from 23 mothers with young children (newborn to three-years-old) indicated that mothers who engaged in low frustration tolerance had higher levels of maternal stress (r = -.58, p < .01). Therefore, these results lend support to Joyce's (1995) findings that low frustration tolerance was related to more maternal stress.

Ohr et al. (2003a) also assessed the relationship between mothers' perception of spousal support regarding childrearing and maternal spousal stress related to perceived dysfunction in the relationship. Higher levels of maternal spousal stress were related to maternal perception of limited partner support for how mothers deal with the children (r = -.61, p = .01).

In a similar study with a larger sample of 50 mothers, Vidair, Travers, Hoag, Vargas & Ohr (2003) also found that a mother reporting a high level of spousal stress perceived her partners as being less supportive of her parenting (r = .60, p = < .001). In terms of maternal spousal stress and mothers' perception of limited partner support regarding parenting, it seems that mothers unhappy in their current relationships are feeling a lack of partner support in the raising of their children. It remains a question whether or not this lack of support predicts an overall level of maternal stress. Mulson, Caldera, Pursley, Reifman & Huston (2002) noted that further research needs to assess the relationship between parenting stress and mothers' perception of partner

support beyond intimacy. To the authors' knowledge, no other information currently exists concerning the relationship between mothers' perception of partner support specifically regarding childrearing and maternal stress. Assessing this connection may later assist clinicians in knowing what to address during cognitive-behavioral, stress-reduction interventions.

Ohr, Vidair, Hoag, & Vargas (2003b) sought to extend research concerning irrational beliefs by determining which, if any, of the following variables would predict maternal stress: partner support (defined by maternal perception of degree of partner support regarding child rearing practices), involvement (defined by maternal perception of degree of partner daily involvement with children in the home), low frustration tolerance, and awfulizing, which is "a way of exaggerating the negative consequences of a situation to an extreme degree, so that an unfortunate occurrence becomes 'terrible'" (Walen et al., 1992, p. 18). The dependent variable was an overall measure of maternal stress. Fifty mothers were utilized and the methodology followed Ohr et al.'s prior study (2003a). A regression analysis using a stepwise prediction method revealed that mothers' perception of limited partner support predicted 25.3% of the variance in maternal stress, with a statistically significant incremental change of .089 when low frustration tolerance was added to the model. Thus, 34.2% of the variance in maternal stress was accounted for by these two variables, when taken together. Therefore, mothers' perception of her partner's support and low frustration tolerance significantly predicted self-reported maternal stress, yet perception of partner involvement and awfulizing did not add significantly to this prediction. However, the measure of support in this study reflects the perception of the mother, and may or may not accurately reflect what may be objectively determined through observation. This does suggest, however, that perhaps regardless of the actual degree of support, it is the mother's perception of it that is related to her perceived level of stress. In addition, these results lend some support to Joyce's (1995) findings that low frustration tolerance is an important factor in parental stress. Outliers in Ohr et al's (2003b) study, however, were not eliminated, suggesting that the accuracy of the percentage of variance accounted for may have been inaccurate.

The Current Study

Following cognitive-behavioral theory, it is plausible that the way parents think about certain events in their lives influences the way they feel. Irrational beliefs and various types of emotional stress have previously been somewhat correlated, although work has been very limited among parents, especially those of young children. When a child is first born, and he or she is very dependent on the mother, it follows that stress has a large impact on mother and infant functioning, as well as on dyadic interactions (Ohr et al., 2003b). If low frustration tolerance and/or mothers' percep-

tion of limited partner support regarding parenting predicts maternal stress in mothers of infants, this would lend support for a cognitive-behavioral intervention aiming to reframe this type of thinking, thus reducing parental stress. Furthermore, if mothers' perception of limited partner support regarding parenting significantly predicted maternal stress, partner involvement in intervention may also contribute to a beneficial outcome. In order to create an effective intervention for mothers experiencing stress, however, we must determine if these variables contribute to such negative feelings.

This study sought to assess if mothers' low frustration tolerance and perception of limited partner support significantly predict an overall level of maternal stress. A review of the literature indicates that an assessment of these two variables together has been limited, and has not evaluated these variables in relation to mothers of infants at all. If these factors predict maternal stress over and above others, they could become the focus of a cognitive-behavioral, stress-reduction intervention for mothers of infants.

Method

Participants

Participants were contacted via mail using a mailing list of 700 mothers with recent births in a Northeastern suburb of a major metropolitan area. Surveys were sent out along with an introductory letter stating the purpose of the research as well as benefits received from participating. These advantages included contributing to scientific knowledge in the area of parent-child relationships, a chance to enter a raffle for a \$100 gift certificate to Toys-'R-US, a chance to receive a free parenting packet with parenting tips, and the opportunity to receive a free stress management intervention. Seventy-five mothers responded, but only sixty-one mothers completed all of the questionnaires necessary for the statistical analyses. In terms of demographics, all mothers did not contribute data for every variable. First, the mean age of the mothers was 32.8 years-old (SD = 5.35, n = 59). Second, the infants of these mothers ranged in age from seven weeks to 15 months old, and they were the only child in 45.9% of the cases (n = 61). As for how many siblings the others had, 42.6% had one, 6.6% had two, and 4.9% had three. Thirty-one of these infants were female, whereas 26 were male. Furthermore, 78.7% of the sample identified as Caucasian, whereas 6.6% were Latino, 4.9% were Asian, 3.3% were African-American, 1.6% fit into a category of other, and 4.9% did not fill out this information. In addition, 63.9% of 59 mothers reported being married and 52.5% of 60 mothers reported that they work.

Measures

Partner Support. Mothers' perception of partner support regarding childrearing practices was assessed with the following question: "How supportive is your partner regarding the way *you* deal with the children (e.g., the type of discipline you use)?" Mothers responded on a 5-point Likert scale ranging from "much below average" to "much above average."

Irrational Beliefs. The low frustration tolerance subscale on the Survey of Personal Beliefs (SPB; Demaria et al., 1989; Kassinove, 1986) was completed to obtain a selfreport of low frustration tolerance, one of Ellis' (1962) core irrational beliefs. The PBS contains 50 self-report items on a 6-point Likert scale, compartmentalized into five categories, one of which is low frustration tolerance. There are 10 items on this scale. For example, one low frustration tolerance item stated, "There are some things that I just can't stand." Possible responses ranged from agree to disagree. Lower scores indicated a higher level of irrationality. Chang and Bridewell (1998) found a coefficient alpha of .80 for the total scale of irrational beliefs. As in their study, this irrational beliefs scale was utilized as opposed to others available because the items focus on cognitions rather than emotions. By avoiding emotionally-loaded words, this measure reduces the possibility of an overlap between the level of irrational beliefs and emotional stress.

Parenting Stress. The Parent Domain section of the Parenting Stress Index (PSI; Abidin, 1983) was completed by mothers to obtain a self-report of level of overall maternal stress. This 54-item scale is composed of the following seven subscales: depression, attachment, role restriction, competence, isolation, spouse, and health. A 5-point Likert scale from strongly agree to strongly disagree was utilized for most of the statements, and participants were instructed to choose a response that best represented their opinion. For example, an item assessing competence stated, "I feel capable and on top of things when I am caring for my child." In the area of role restriction, one item stated, "I find myself giving up more of my life to meet my children's need than I ever expected." If they had more than one child, they were told to base their answers on the child they were most concerned about. A few of the statements had four or five multiple-choice answers. For example, in the health section, one item stated, "Since I've had my child, A) I have been sick a great deal, B) I haven't felt as good, C) I haven't noticed any change in my health, D) I have been healthier." Higher scores indicated a higher level of maternal stress in that area. The total score, which is a composite of these subscales, was utilized. The reliability coefficient for the PSI's total parent domain was .93 when administered 1 to 3 months after the baseline, lending some support for the consistency of these scores over time (Abidin, 1995).

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Results

A simultaneous regression analysis was performed to determine which variables of interest would predict an overall level of maternal stress. The predictor variables were mothers' perception of partner support and low frustration tolerance. The dependent variable was an overall measure of maternal stress. Descriptive statistics for the variables are presented in Table 1.

The scatterplots of residuals were examined to determine if the assumptions of multiple regression were met. The assumption of homoscedasticity was found to be questionable for partner support. Regarding the assumption of linearity, a pattern of linearity was demonstrated when maternal stress was regressed on each of the predictor variables. To determine whether the presence of outliers might have undue influence on the results, inspection of the casewise diagnostics indicated that there were two cases that were extreme on the criterion variable. An analysis of Cook's Distance indicated that these cases were exerting undue influence. Specifically, one case had an extremely high maternal stress score on the Parent Domain, whereas the other case had an extremely low score on this scale. Thus, these two cases were excluded in the analyses.

The zero-order correlation among the two predictor variables, low frustration tolerance and partner support, was almost nonexistent (r = .05, p = .712). Low frustration tolerance and partner support were both moderately correlated with the criterion (r = -.41, p = .001 and r = -.28, p = .035

Table 1
Descriptive Analysis

	M	SD	Minimum	Maximum
Partner Support ^a	4.10	.86	2.00	5.00
Low Frustration	31.88	6.78	19.00	49.00
Tolerance b Parent Domain c	123.80	24.38	73.00	183.00

Notes. N=59

respectively). Theses were based on the data of 59 participants.

Results of simultaneous regression analysis indicated that the two predictor variables were found to account for 23.6% of the variance predicted for in maternal stress. The stepwise regression analysis revealed that low frustration tolerance predicted 17.1% of the variance in maternal stress, with a statistically significant incremental change of .065 when mothers' perception of partner support was added to the model. Therefore, low frustration tolerance appears to be more important than mothers' perception of limited partner support in predicting maternal stress in mothers of infants, yet both are important factors. Betas and values of significance can be seen in Table 2.

Table 2
Stepwise Prediction Method of Partner Support and Low
Frustration Tolerance Predicting Maternal Stress

Measure	В	R	R^2	P
1. LFT 2. LFT	-1.487 -1.442	.171	.171	.001
+ Partner Support	-7.206	.236	.065	.033

Note. LFT (Low Frustration Tolerance); PSI (Parenting Stress Inventory).). Mothers' perception of partner support, , low frustration tolerance, and maternal stress were assessed.

n = 58 for the regression analysis, as some mothers neglected to fill out all the information necessary.

Discussion

The results of the current study confirm Ohr, Vidair, Hoag, and Vargas' (2003b) findings that both mothers' perception of limited partner support and low frustration tolerance significantly predict an overall level of self-reported maternal stress in mothers of infants. Most of the variance found in maternal stress, however, was accounted for by mothers' low frustration tolerance, such as thoughts that situations are unworkable and intolerable. Joyce's (1995) research showed that low frustration tolerance specifically related to parenting was moderately related to parental stress. The results of the current study advance her findings by demonstrating that even a tendency to have low frustration tolerance related to general situations at home, work, and other life events (not just related to parenting) significantly predict maternal stress. As Ellis (1962, 1995) theorized, engaging in irrational beliefs seem to result in emotional and behavioral consequences (e.g. Joyce, 1990; Walen, DiGiuseppe, & Dryden, 1992; Abrams & Ellis, 1994; Gerbode & Moore, 1994; Chang & Bridewell, 1998).

Joyce (1995) found a relationship between low frustration tolerance and parenting stress in parents of school-age children. This study looked at mothers of infants, indicating that low frustration tolerance is a factor for these mothers as

^a Mothers' perception of partner support regarding childrearing (i.e. discipline) was assessed using a 5-point Likert scale ranging from 1= much below average to 5=very much above average.

^b Low frustration tolerance is another subscale on the Survey of Personal Beliefs (SPB). The subscale contains 10 items, with each item scored a 6-point Likert Scale. Scores could range from 10 to 60. Lower scores indicate greater irrationality.

^c The Parenting Domain of the Parenting Stress Index (PSI) was completed by mothers to obtain a self-report of overall and specific parenting stress. This 54-item scale is composed of seven subscales. The Scores could range from 54-269. Higher scores indicate greater overall stress.

well. Perhaps we can teach mothers of infants to reframe their beliefs of low frustration tolerance, thus reducing parenting stress, as Joyce (1995) demonstrated for parents of school-age children, and ultimately improve parenting skills.

Mothers' perception of limited partner support regarding childrearing also influences the level of maternal stress for mothers of infants. Bonds, Gondoli, Sturge-Apple, and Salem (2002) found that parenting stress mediates the relationship between perceiving some type of support for maternal parenting strategies and optimal parenting. Bonds et al. suggest that community-parenting interventions could increase such perceptions, either by providing informational and emotional support or by facilitating group connections. Perhaps increasing mothers' perception of partner support regarding childrearing would also reduce maternal stress, which theoretically, would improve parenting.

This study only examined a limited number of factors that could possibly contribute to maternal stress. Although many factors are probably responsible for such stress, it was not within the scope of this study to address every possibility. Future studies should be implemented to try replicating and expanding the findings of this study, as well as to address the following limitations. First, is important to note that the measure of partner support in this study reflects the perception of the mother and may not accurately reflect what would be objectively determined through observation (Ohr et al., 1993b, Vidair et al., 2003). The findings do suggest, however, that regardless of the actual degree of partner support, it is the mother's perception of this support that is related to her perceived level of stress. Nevertheless, future research should include direct observations assessing parent-child interactions, as all variables in this study were based on self-report measures.

Another important issue is the way that partner support was assessed. The question asked for mothers to rate their perception of their partners' support regarding the way she handles the children. A potential problem with this is that each mother may define the variable of partner support differently. In addition, the measure does not differentiate between quality and quantity of partner support she perceives or whether or not she is satisfied with this amount or type of support. Future studies should utilize a clearly defined measure of partner support that assesses all of these variables. Moreover, studying general partner supportiveness in addition to studying partner support related to child rearing may be beneficial.

Issues concerning the distribution of scores on the questionnaires utilized also exist. For example, the partner support scores were skewed, as the majority of mothers felt that their partner's level of supportiveness was either somewhat or much above average. Second, the mean score on the Parent Domain of the PSI in this sample (M = 122.78, SD = 23.28) was almost identical to the normative mean for the Parent Domain in the standardized sample (M = 123.1, SD = 24.4), indicating that this sample of mothers did not appear very stressed. Perhaps the low response rate

found in this study is because stressed mothers did not need the added stress of completing and returning the surveys.

A variety of factors may have contributed to our low response rate. For example, mothers may have had stressors that prevented them from completing the surveys, such as problems with mental or medical health. Moreover, infant medical problems may be a factor contributing to the low response rate. In addition, perhaps cultural variables may have influenced who volunteered to participate, as our sample was mostly Caucasian. These variables should be taken into consideration in future studies addressing maternal stress. A different method of recruitment may be necessary, as a study utilizing a more distributive sample would be beneficial in order to make stronger conclusions concerning a stress-reduction intervention.

Furthermore, while the overall stress score was used as the dependent measure, the Parent Domain is a composite of subdomains of stress. It may be good to explore predictive relations among stress subdomains, perceived partner support, and low frustration tolerance to get a more complex idea of their interactions. Future studies may also want to focus on more clinical areas of psychopathology, such as maternal depression, anxiety, and anger in order to determine predictive factors in those areas.

Nevertheless, as beliefs about low frustration tolerance and limited partner support significantly predict maternal stress, a cognitive-behavioral intervention program focused on reframing dysfunctional thinking may be beneficial. Much evidence has supported cognitive-behavioral therapy as a successful strategy in the reduction of emotional stress (e.g., Smith, 1982; Smith, 1983; Joyce, 1990; Joyce, 1995; Clark, 1998). Theoretically, this decrease in stress would influence a better mother-child relationship.

Intervening with the mother, however, is only part of what seems to be needed for stress reduction in mothers with young children. Mothers' perception of partner support, regardless of the objective level of support given, suggests that the partner may be a critical component of any intervention program (Ohr et al., 2003b, Vidair et al., 2003). Intervening with the mother may have implications for reducing stress in the short-term, but including the partner may result in maximal long-term gains regarding the psychological and physical well-being of mothers, their partner, and their infants.

References

Abidin (1983). Parenting Stress Index (Form 6). Charlottesville, VA: Pediatric Psychology Press.

Abidin (1995). Parenting Stress Index Third Edition: Professional Manual, Florida; Psychological Assessment Resources. Inc.

Abrams, M., & Ellis, A. (1994). Rational-emotive behavior therapy in the treatment of stress. *British Journal of Guidance and Counseling*, 22, 39-51.

- Bonds, D.D., Gondoli, D.M., Sturge-Apple, M.L., & Salem, M.N. (2002). Parenting stress as a mediator of the relation between parenting support and optimal parenting. *Parenting: Science and Practice*, *2*, 409-435.
- Chang, E.C., & Bridewell, W.B. (1998). Irrational beliefs, optimism, pessimism, and psychological stress: A preliminary examination of differential effects in a college population. *Journal of Clinical Psychology*, *54*, 137-142.
- Clark, L. *Help for emotions*. Kentucky: Parents Press, 1998. Demaria, T.P., Kassinove, H., & Dill, C.A. (1989). Psychometric properties of the survey of personal beliefs: A rational-emotive measure of irrational thinking. *Journal of Personality Assessment*, *53*, 329-341.
- Ellis, A. *Reason and emotion in psychotherapy*. New York: Lyle Stuart, 1962.
- Ellis, A. (1995). Changing rational-emotive therapy (RET) to rational-emotive behavior therapy (REBT). *Journal of Rational-Emotive and Cognitive Behavior Therapy, 13*, 85-89.
- Gerbode, F.A. & Moore, R.H. (1994). Beliefs and intentions in RET. *Journal of Rational-Emotive and Cognitive Behavior Therapy*, 12, 27-45.
- Jacobsen, R.H., Tamkin, A.S., & Blount, J.B. (1987). The efficacy of rational-emotive group therapy in psychiatric patients. *Journal of Rational-Emotive Therapy*, *5*, 22-31.
- Joyce, M.R. (1990). Rational-emotive parent consultation. *School Psychology Review*, *19*, 304-314.
- Joyce, M.R. (1995). Emotional relief for parents: Is rational-emotive parent education effective? *Journal of Rational-Emotive and Cognitive Behavior Therapy*, 13, 55-75.
- Kassinove, H. (1986). Self-reported affect and core irrational thinking: A preliminary analysis. *Journal of Rational-Emotive Therapy*, *4*, 119-130.
- Moller, A.T., Rabe, H.M., & Nortje, C. (2001). Dysfunctional beliefs and marital conflict in stressed and non-stressed married individuals. *Journal of Rational-Emotive and Cognitive Behavior Therapy*, 19, 259-270.

- Ohr, P.S., Vidair, H.B., Hoag, J., & Vargas, W.G. (2003a, August). *Intervention for dysfunctional mother-infant-sibling triads using cognitive-behavioral techniques*. Poster session presented at the annual meeting of the American Psychological Association, Toronto, Canada.
- Ohr, P.S., Vidair, H.B., Hoag, J.M., & Vargas, W.G. (2003b, November). *Dysfunctional thinking and maternal parenting stress in families with young children*. Poster session presented at the annual meeting of the Association for Advancement of Behavior Therapy, Boston, MA.
- Smith, T.W. (1982). Irrational beliefs in the cause and treatment of emotional stress: A critical review of the rational-emotive model. *Clinical Psychology Review*, 2, 505-522.
- Smith, T.W. (1983). Change in irrational beliefs and the outcome of rational-emotive therapy. *Journal of Consulting and Clinical Psychology*, *51*, 156-157.
- Stebbins, P. & Pakenham, K.I. (2001). Irrational schematic beliefs and psychological distress in caregivers of people with traumatic brain injury. *Rehabilitation Psychology*, 46, 178-194.
- Vernon, A. (1990). The school psychologist's role in preventive education: Applications of rational-emotive education. *School Psychology Review*, 19, 322-330.
- Vidair, H.B., Travers, M.E., Hoag, J.M., Vargas, W.G., & Ohr, P.S. (2003, November). *Maternal spousal stress, perception of partner supportiveness, and perceived partner involvement in parents of young children.* Poster session presented at the annual meeting of the Association for Advancement of Behavior Therapy, Boston, MA.
- Walen, S.R., DiGiuseppe, R., & Dryden, W. (2nd Ed.) *A practitioner's guide to rational-emotive therapy.* New York: Oxford University Press, 1992.
- Walker, A.P. (2002). Parenting stress: A comparison of mothers and fathers of disabled and non-disabled children. *Dissertation Abstracts International: Section B: The Sciences & Engineering*, 62, 3393.