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Evaluating Child Routines as a Mediator of Marital Conflict and Child Adjustment

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The University of Southern Mississippi

EVALUATING CHILD ROUTINES AS A MEDIATOR OF MARITAL CONFLICT
AND CHILD ADJUSTMENT

by

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A Thesis

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of The University of Southern Mississippi
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Abstract

Many studies have examined the relationship between destructive marital conflict and child externalizing behavior, however there are several gaps in the literature about constructive marital conflict and internalizing child behaviors. Also, where many experiments have focused on parenting practices as the mediator of this relationship, no known studies have examined child routines as a mediator. Thus, the current study aims to test child routines as a mediator between both constructive and destructive marital conflict, and child internalizing and externalizing behavior. Participants included 121 married mothers with children from ages 6-12 ($M = 8.59$, $SD = 1.93$). Data about the parent's relationship and child were collected through the mother by way of questionnaires about marital conflict, child routines, and child behavior problems. After examining zero order correlations, multiple regression analyses were used in order to test child routines as the mediator between destructive marital conflict and internalizing and externalizing behaviors. Although there was a decrease in magnitude of the direct effect for both internalizing and externalizing behavior, the indirect effects were marginally significant for the externalizing model according to the Sobel (1982) test of indirect effects. Although the mediation hypothesis was not fully supported, the present findings are considered in the context of extant literature and study limitations and future directions are discussed.

Evaluating Child Routines as a Mediator of Marital Conflict and Child Adjustment

Child behavior problems are the number one reason for referral to mental health care professionals (Barkley, 1997). In fact, 10-20% of children and adolescents in the United States have behavioral and emotional problems that may continue to get worse if left untreated (Anderson et al., 1999). Problem behaviors can be split into two general categories, internalizing and externalizing. Internalizing behaviors are the internal distress that a child may feel in response to turmoil. Anxiety, depression, and withdrawal are a few of the more common ways children internalize their distress. In contrast, externalizing behaviors are more likely to result in conflict with others due to distress. Acting out through aggression and other delinquent behaviors are examples of children and adolescents externalizing their distress (Brunnekreef et al., 2007).

The presence of marital conflict in a family shapes and influences the environment in which the child learns and grows. All couples experience marital conflict; however some couples have more positive, constructive ways of dealing with their conflict, while other parents use more negative, destructive ways of dealing with their conflict. Couples who exhibit constructive marital conflict generally openly discuss their problems, resolve conflict completely and calmly, and may show affection during or after their conflict. Couples who use destructive tactics of marital conflict are more likely to be aggressive, threatening, argue frequently, or leave issues unresolved (Davies & Cummings, 1994). Constructive marital conflict has been positively correlated with children's secure attachment, better problem solving skills, and emotional stability (Cummings, Goeke-Morey, & Papp, 2003; Frosch, Mangelsdorf, & McHale, 2000;

Goodman, Barfoot, Frye, & Belli, 1993). Destructive marital conflict has been shown to increase aggression, conduct disorders, anxiety, and depression in children (Davies & Cummings, 1994; Gonzales, Pitts, Hill, & Roosa, 2000). Therefore, constructive marital conflict is linked to a decrease in the development of childhood internalizing and externalizing behaviors, where destructive marital conflict is linked to an increase in internalizing and externalizing behaviors.

Although links between marital conflict and child adjustment are well established (Davies & Cummings, 1994), less is known regarding specific mechanisms through which marital conflict influences child adjustment. Examination of mediating variables, such as parenting practices or child routines, would help elucidate mechanisms of influence, which may also serve as targets of intervention for families with high levels of marital conflict in reducing child internalizing and externalizing behavior.

Positive and negative parenting practices have been found to strongly mediate the relationship between marital conflict and child routines. Previous research has found destructive marital conflict to be greatly related to more negative parenting, and constructive marital conflict closely linked with positive parenting. Acts of positive parenting include both warmth and control which results in fewer internalizing and externalizing behaviors in children (Baumrind, 1971; Cummings et al., 2003). Negative parenting includes inconsistent discipline and poor monitoring, which has been linked to more externalizing behaviors (Patterson, DeBaryshe, & Ramsey, 1989). Jordan (2003) demonstrated that positive parenting and child routines have been moderately positively correlated; giving reason to believe child routines may mediate the relationship of marital conflict and child adjustment as well.

Child routines have been proposed as a mechanism for providing structure and consistency to family life. Despite the popularity of child routines in common parlance, there has been little study of the effects of child routines on the family's capacity to cope and adjust to marital conflict. It could be that families who maintain child routines may find their children are better able to cope with existing marital conflict. Although child routines have been generally accepted as a positive practice for a child's daily life, there has been little studied about the effects of routines on the family or specifically, on children dealing with specific marital conflict (Sytsma, Kelley, & Wymer, 2001). Child routines have been defined as repetitive behaviors, organized by parents, which can be observed by at least one adult consistently each day (Henderson & Jordan, 2010). Examples of common routines include morning, meal, homework, chore, and bedtime routines (Nelson, Duffy, & Erwin, 1998). Jordan (2003) found that child routines were inversely correlated with externalizing, and to a lesser extent, internalizing, behaviors in children. Therefore, more routines are related to fewer internalizing and externalizing behaviors.

Researchers have proposed that constructive marital conflict will "spillover" into positive parenting, which will result in fewer internalizing and externalizing behaviors (Engfer, 1988; Tyson, 2011). To the extent that child routines may represent a type of positive parenting practice, it was plausible to predict that child routines may also be a mechanism through which marital conflict exerts its influence on child adjustment. Destructive marital conflict may cause a deterioration of parenting such as being emotionally unavailable for the child or an inability to provide the structure that routines bring, and thus the child may develop internalizing or externalizing behaviors. In

contrast, constructive marital conflict may create a parent who is able to be more involved with his/her child through positive parenting practices like child routines, which allow the child to develop with fewer internalizing or externalizing behaviors. The purpose of the present study was to examine child routines as a potential mediator of the relationship between marital conflict and child adjustment.

Child Adjustment Problems

Children are greatly affected by the quality and nature of the relationship they have with their parents because parents establish the emotional context in which children grow up. If the parent-child relationship is neglected or the parent does not properly set limits, children may become anxious, depressed, openly defiant, aggressive, or noncompliant (Barkley, 1997). Anxiety and depression are examples of internalizing behaviors, and open defiance, aggression, and noncompliance are examples of externalizing behaviors (Brunnekreef et al., 2007). Children with either internalizing or externalizing behaviors that are left untreated, or have little positive parental monitoring, are at greater risk for adolescent delinquency or developing antisocial personality disorder (Barkley, 1997; Patterson et al., 1989).

Theoretical Background

Spillover hypothesis. The Spillover Hypothesis suggests that when parents are experiencing marital conflict, the stress and tension is passed down to the parent-child relationship, which may result in the child having internalizing or externalizing problems (Engfer, 1988). When parents resolve their conflict in a positive manner, it results in positive parent-child relationships and increases child wellbeing (Bradford & Barber, 2005).

There are several mechanisms that have been suggested to illustrate the spillover hypothesis from marital conflict to child adjustment. The socialization mechanism proposes that parents who are emotionally distressed by their marital conflict will be less apt to practice positive parenting. A few parenting practices that may be disrupted due to destructive marital conflict include sensitivity to the child's emotional needs, awareness of the child's behavior problems or activities, or consistency of discipline across both parents. Destructive marital conflict could cause parents to be so absorbed in their own conflicts that they fail to meet their child's needs. Also, the parent may be completely unaware of their child's activities and behavior problems, providing less discipline and structure. As parents continue to struggle with each other, the lack of communication may cause inconsistencies in parenting practices. This could include the suspension of predictable routines for the child, resulting in a greater disruption and more behavior problems (Engfer, 1988, Tyson, 2011).

Marital Conflict

All couples experience conflict and there are many tactics that could be used while dealing with this conflict, some more positive, others more negative. Destructive marital conflict involves a more negative disposition which includes conflict tactics such as frequent or unresolved conflict, along with aggression or threats. This type of conflict has been shown to increase behavior problems in children (Davies & Cummings, 1994; Gonzales et al., 2000). Constructive marital conflict involves more positive disposition which includes conflict tactics such as both parents remaining calm, issues being resolved completely, and parents continuing to show affection during or after the conflict.

Constructive marital conflict is related to less internalizing and externalizing behaviors (Cummings et al., 2003; Frosch et al., 2000; Goodman et al., 1993).

Destructive marital conflict with internalizing and externalizing behaviors.

Holden (1998) estimates that the number of children in the United States who have been exposed to marital violence could be as high as 17.8 million each year (Jouriles, McDonald, Norwood, & Ezell, 2001). Parents who are involved in destructive marital conflict have been found to be emotionally unavailable, coercive, or rejecting. These parenting behaviors are believed to be specifically connected with high levels of internalizing and externalizing behaviors in children (Kaczynski, Laurenceau, Lindahl, & Malik, 2006). Many studies have found that destructive marital conflict, including aggressive, threatening, frequent, or unresolved conflict, may result in less positive parenting and more child adjustment problems (Davies & Cummings, 1994; Doyle & Markiewicz, 2005; Fauber, Forehand, Thomas, & Wierson, 1990; Schoppe-Sullivan, Schermerhorn, & Cummings, 2007).

Cummings, Goeke-Morey, and Papp (2003) studied many different constructive and destructive conflict tactics and the effects of these tactics on child adjustment through both questionnaires and ongoing diary accounts from both parents. Regarding destructive marital conflict, threat, along with personal insult, verbal hostility, defensiveness, nonverbal hostility, marital withdrawal, and physical distress were all connected to negative emotionality from the child. These negative emotions included anger, sadness, and fear responses during or directly after the destructive marital conflict occurred. All negative emotions were related to both internalizing and externalizing behaviors.

In previous studies, aggressive marital conflict has been linked with more coercive, rejecting, and ineffective parenting. These types of parenting practices are closely linked to externalizing behaviors in children, such as acting out in similarly aggressive ways. Also, aggressive marital conflict was found to cause internalizing behaviors when the parents were unable to recognize and respond to the child's emotional needs (Kaczynski et al., 2006). Holden and Ritchie (1991) found that marital aggression was linked to high parenting stress, less warmth, inconsistent discipline, more parent-child conflict, and less parental involvement. All of these forms of negative parenting that stemmed from destructive marital conflict were predictors of more child behavior problems (Davies & Cummings, 1994).

The frequency of marital conflict proves to be just as influential in child adjustment as the tactics or outcome of the conflict. Frequent marital conflict has been positively correlated with inconsistent discipline, which was also linked to depression and conduct disorder in children (Gonzales et al., 2000). Research suggests that the greater the exposure to destructive marital conflict, the more emotionally insecure a child becomes (Davies & Cummings, 1994). Patterson and colleagues (1989) suggested that destructive marital conflict is a family stressor that increases risk for development of antisocial child behavior. More frequent marital conflict has also been linked to harsh and inconsistent discipline, along with little positive parental involvement, and increased likelihood for antisocial behaviors in children. Thus, these researchers offer additional evidence that marital conflict influences children's externalizing behaviors through decreased use of positive and increased use of negative parenting practices.

Unresolved conflicts seem to have a unique connection with the child's perceptions of threat to the family's stability, their own emotional stability, and parent-child bonds (Gonzales et al., 2000; Schudlich & Cummings, 2003). In fact, Gonzales et al. (2000) found that unresolved conflict was negatively related to the child's perceptions of parental acceptance, a meaningful positive parenting practice. In this study, parental acceptance fully mediated the relationship between interparental conflict, specifically unresolved conflict, and depression or conduct disorder. Schudlich and Cummings (2003) similarly found that unresolved marital conflict mediated parental depression and the child's internalizing behaviors. Unresolved conflict was the only destructive marital conflict that was significant in raising internalizing behaviors, suggesting that when the conflict is left unresolved, the child may begin to feel hopeless and therefore become unstable. Although there has been a considerable amount of research exploring the direct and indirect links between marital conflict and child adjustment, no studies were found examining child routines as a mediating variable.

Constructive marital conflict and internalizing and externalizing behaviors.

Although there are fewer studies on constructive marital conflict and their effects on child adjustment, previous research has connected constructive marital conflict, positive parenting, and emotional security in children (Frosch et al., 2000; Tyson, 2011). Constructive marital conflict involves open discussion, calm resolutions, and affection during or after disagreements. Based on previous research, it is believed that constructive marital conflict is linked to positive parenting which may decrease internalizing and externalizing behaviors (Davies & Cummings, 1994; Cummings et al., 2003; Doyle & Markiewicz, 2005).

Cummings et al. (2003) found that, unlike deconstructive marital conflict, constructive marital conflict was related to more positive emotions such as happiness. Specifically, calm discussion, support, and affection were related to positive emotions in children. These positive emotions were negatively related to both internalizing and externalizing behaviors. Constructive marital conflict is related to a higher quality of marriage as well, creating warmer relationships among partners. There is evidence that the warmer relationship among parents is linked with a warmer parent-child relationship which correlates greatly with decreased externalizing behaviors as well (Miller, Cowan, Cowan, Hetherington, & Clingempeel, 1993). More research is needed to explore the indirect relationships between constructive marital conflict and child adjustment. Also, no previous studies found have researched child routines as a specific type of positive parenting that may mediate the relationship between constructive marital conflict and child adjustment.

Studies have consistently linked destructive marital conflict, and to a lesser extent, constructive marital conflict, with increased or decreased child externalizing and internalizing behavior problems, respectively. Previous literature has also suggested potential mechanisms through which marital conflict exerts its influence on child adjustment, with various positive and negative parenting practices being among the most commonly studied mechanisms. Child routines are similar in many ways to positive parenting practices, thus it is likely that routines may be an additional mechanism through which marital conflict influences child adjustment. However, routines have been the focus of little empirical study.

Child Routines

Despite the ongoing advice from popular media (e.g. parenting books and magazines) to implement child routines as a solution to behavioral problems and improve childhood transitions, there have been very few studies to support these claims (Sytsma et al., 2001). Child routines are activities that occur regularly each day, in a predictable manner, are supervised by at least one adult, and are specific to an individual child, as opposed to the whole family unit (Henderson & Jordan, 2010; Sytsma et al., 2001). Routines have been said to provide the structure, organization, and parental involvement that children seek (Nelson et al., 1998; Nelson, Lott, & Glenn, 1999). Routines have been linked with both internalizing and externalizing behaviors, although findings involving internalizing behaviors have been more mixed and of lower magnitude in previous studies (Jordan, 2003; McLoyd, Toyokawa, & Kaplan, 2008).

Previous research gives evidence that child routines correlate greatly with fewer externalizing behaviors (Jordan, 2003; Sytsma et al., 2001). Brody and Flor (1997) found that mealtime, bedtime, and homework routines positively correlate with the children's academic and psychosocial adjustment. Prelow, Loukas, and Jordan-Green (2007) studied Latino children and found that family routines partially mediated the relationship between socioenvironmental risk and the children's social competence. In this study, social competence related with externalizing behaviors, but there were no significant results for routines and internalizing behaviors.

Jordan (2003) found that positive parenting and child routines positively correlated, suggesting child routines may have some of the same effects, as positive parenting, on child adjustment. Hair and colleagues (2008) found that family routines,

along with positive parenting such as parental monitoring, and parental supportiveness, were significantly related to adolescents' mental wellbeing and rates of delinquency. The greater the routines and positive parenting in the adolescent's life, the fewer behavioral problems were found, including internalizing behaviors. Hair et al. (2008) concluded that not only were the positive parenting actions important, but that routines help parents continue to be aware of the activities and "critical aspects" of adolescents' lives, and helped the adolescents perceive parental support, generating fewer internalizing behaviors. In another study on family routines and parental monitoring, Murphy et al. (2009) found that in a family affected by maternal HIV/AIDS, increases in family routines were correlated with a decrease in adolescent's aggressive behavior, anxiety, depression, conduct disorder, and heavy drinking.

Despite the research supporting child and family routines, conflicting results have been found. For example, when studying African American, two parent families, McLoyd et al. (2008) found that work-family conflict, family routines, and adolescents internalizing and externalizing behaviors were all unrelated. Family routines seemed to make no difference in two parent families with high work-family conflict. However, in the same study, McLoyd found that in single parent homes the increase in work demands correlated with a decrease in family routines and an increase in work-family conflict. The combination of higher work-family conflict coupled with maternal depression predicted more externalizing behaviors in children and was mediated by decreased family routines. Recent findings by Tyson and colleagues (2010) offered preliminary support for child routines as a mediator of the relationship between destructive marital conflict and externalizing behaviors. Although promising, this analysis was limited in several ways.

First, the marital conflict measure only included destructive conflict that took place in front of the child. Another limitation included only the externalizing behaviors being analyzed, as opposed to both internalizing and externalizing (Tyson, Gryczkowski, & Jordan, 2010). Therefore, the current study will build on the current knowledge of child routines by examining a more thorough range of marital conflict (including constructive and a more comprehensive measure of destructive marital conflict) as well as a more full range of child behaviors (internalizing and externalizing). Specifically, the relationship between child routines and constructive and destructive marital conflict and children's internalizing and externalizing behaviors will be explored in this study.

Hypotheses

Based on previous research, we expected that child routines would mediate the relationship between marital conflict and child adjustment. More specifically, we expected that 1) child routines would mediate between constructive marital conflict and child internalizing and externalizing behaviors, with child routines showing positive relations with constructive marital conflict and inverse relations with child behavior problems and 2) child routines would mediate between destructive marital conflict and child internalizing and externalizing behaviors, with child routines showing inverse relations with destructive marital conflict and child behavior problems.

Methods

Participants

The present study used archival data collected from 121 mothers of children between the ages of 6 and 12. These data were selected from a database of 126 participants that were previously collected as part of a larger project. The 121

participants were selected using the following sampling criteria: (a) female caregivers for a child age 6-12 (not necessarily a biological parent), (b) married to the same man for at least the past year, (c) over the age of 18. Subjects were excluded if the child was reported to have mental retardation or a pervasive developmental disorder. Five of the 126 collected did not meet the age or marital requirements, therefore they were excluded from the study. In the event that a female participant had several children in the eligible age range, one target child was randomly selected by drawing names. Over half of the data (53.7%) were collected at local community schools, churches, and businesses. The rest were collected through USM students using the Psychology Department Human Subjects Recruitment Pool (Sona) for class credit.

The children sampled in this study were 54.5% female; 69.4% were Caucasian, 27.3% were African American, and 3.3% were Mixed or Other Ethnicity. Child's ages ranged from 6 to 12 years old ($M = 8.59$, $SD = 1.93$). Only 5.8% of children included in the study had received clinical services. Mother's ages ranged from 23 to 53 years old ($M = 35.87$, $SD = 6.57$). The median household income was found to be \$50,000 to \$74,999 with mother's highest level of education extending across graduate degrees (23.1%), bachelor's degrees (36.4%), some college (23.1%), high school degrees or equivalent (16.5%), and some high school (.8%). The majority of fathers were reported as having graduate degrees (10.7%), bachelor's degrees (38.8%), some college (26.4%), high school degrees or equivalent (21.5%), and some high school (2.5%). See Table 1 for demographic breakdown.

Measures

Demographics. General demographic information was collected about the family from the mother. The information gathered about the mother included age, race,

occupation, education level, marital status, and number of years married to the current spouse. Information about the father included educational background, occupation, and the couple's combined income. The child's age, sex, and race were also obtained.

Marital conflict. The Conflict and Problem Solving Scales (CPS; Kerig, 1996) is a 44-item questionnaire that uses a 4-point Likert scale (*0-never* to *3- almost always*) to measure various aspects of marital conflict. Frequency, severity, resolution, and efficacy of marital conflict are measured with conflict strategy scales such as Verbal Aggression, Physical Aggression, Stonewalling, Avoidance-Capitulation, Child Involvement, and Cooperation. The CPS has demonstrated great internal consistency ($\alpha = .70-.98$), good convergent ($r = .67$) and discriminant validity, and adequate test-retest reliability ($r = .63$). Husband and wife reports of each other's conflict strategies also correlated ($r = .59$), which has been cited in support of using wife scores in place of both husband and wife scores (Kerig, 1996). Destructive and Constructive Marital Conflict scores were created as indicated below under Composite Creation and used as predictors in this study.

Child routines. The Child Routines Questionnaire (CRQ; Jordan, 2003; Sytsma et al., 2001) is a 39-item measure that uses a 5-point Likert scale (*0-almost never* to *4-nearly always*) to examine the frequency of child routines from the parent's report. Four domains of routines are assessed with the CRQ, which include Daily Living Routines, Household Responsibilities, Discipline Routines, and Homework Routines, and are summed and divided by the number of completed items to form a total average. This measure has reported strong internal consistency ($\alpha = .90$) and test-retest reliability ($r = .86$) (Jordan, 2003). The CRQ total average was tested as a mediator in this study.

Child behavior problems. The Child-Behavior Checklist/6-18 (CBCL; Achenbach & Rescorla, 2001) is a 113-item measure that uses a 3-point Likert scale (*0-not true to 2-very/often true*) to assess child behavior problems. Both internalizing and externalizing behavior problems are measured. Higher scores indicate more externalizing behavior problems and/or internalizing problems. The CBCL/6-18 has reported good internal consistency ($\alpha = .78$ to $.97$), test-retest reliability ($r = .90$), criterion-related validity, and construct validity (Achenbach & Rescorla, 2001). Internalizing and Externalizing Composite T scores were used as outcome variables for this study.

Procedures

The archival data for this study was collected by Kristen Tyson (2011) for research involving parenting practices. Mothers were recruited to participate through USM's Human Subjects Recruitment Pool (Sona) and other community locations such as churches, schools, and pediatric clinics as part of another study, which was approved by the USM Institutional Review Board. USM students who were also mothers were allowed to participate directly, instead of through Sona. All mothers received a packet of instructions, consent form, and various measures. The child did not participate in filling out any questionnaires. The variables that were collected in the archival study included demographic information, behavior problems, marital conflict, child routines, and parenting practices. The mothers' data were returned to the researcher who then verified packets. The researcher checked every packet to insure the consent form was completed and that the mother and child fit the inclusion/exclusion criteria.

Mothers who returned their packets through USM were phoned to verify the child's date of birth, a description of the types of forms completed (any general topic

such as parenting or child behavior sufficed), and one question that was randomly chosen from a list (such as the mother's age, occupation, or education level). If the mothers were unable to give answers that duplicated what was in the packet on the first two questions, no further questioning was conducted. All questions needed to be answered correctly to be used for analysis.

Results

The purpose of the study was to test child routines as a mediator of marital conflict and child adjustment. We predicted that child routines would be the indirect link between both constructive marital conflict and child internalizing and externalizing behaviors, and destructive marital conflict and child internalizing and externalizing behaviors. With constructive marital conflict, it was predicted that more child routines would occur and therefore the internalizing and externalizing behaviors would be less frequent. With destructive marital conflict, it was predicted that less child routines would be practiced causing an increase in internalizing and externalizing behaviors.

Missing Data

Any measures that were found to have incomplete items were prorated by averaging the individual's other items on the same subscale together and replacing the missing item with that averaged number. Less than 1% of data were prorated for the CPS and BASC-2. Regarding the CRQ, 10 participants were found to have incomplete questionnaires in regards to the homework subscale. In order to avoid excluding all 10 participants from the data set, all five items on the homework subscale were prorated. Within-person CRQ average item score for completed items was taken averaging all of

the participants' completed items (excluding validity items 10, 20, and 30). The average was then used in place of missing homework subscales items.

Data Analysis Plan

To test for mediation, zero-order correlations between the initial variable (in this case, constructive or destructive marital conflict) and the outcome (internalizing or externalizing child behavior) must first be significant. In addition, correlations between the initial variable and the mediator (child routines) and between the mediator and outcome must also be significant. Without any one of these significant correlations there is no reason to continue with multiple regression (Baron & Kenny, 1986).

If all requisite zero-order correlations are significant, a series of multiple regression analyses are conducted to test for mediation. The first pathway examined is that of predictor A (marital conflict) to dependent C (child adjustment) after controlling for any necessary covariates. The second regression to be examined is from predictor A to mediator B (child routines). The last regression uses both A and B as predictors where C is the dependent variable. In this third regression, mediator B on dependent C is analyzed with A controlled. Then predictor A on dependent C is examined without B being controlled and then with B controlled. For the mediator to be significant, the relationship of A on C should be significantly stronger without controlling for B than when B is controlled. Full mediation has occurred when the indirect effect reduces the direct effect to zero. Partial mediation has occurred when the direct effect is reduced upon the fixing of the mediational variable, but remains significantly different from zero (Holmbeck, 1997).

Composite Creation

As archival data was used, composites were previously composed as outlined by Kerig (1996). Composite scores were created representing Constructive and Destructive

Marital Conflict. Constructive Marital Conflict was created using the Cooperation scale, and Destructive Marital Conflict was comprised of the Verbal Aggression, Physical Aggression, Stonewalling, Avoidance-Capitulation, and Child Involvement scales. Composites were created by summing the mother's scale items (e.g., verbal aggression), as reported by the mother, and then dividing by the number of items to get the average. The fathers scale items were summed, as reported by the mother, and divided by the number of items to get the average for the father as well. Each average was then summed together and divided by 2. This created the CPS scale average score. The CPS scale average score was then transformed into a z score which was summed to form a composite. Using the CPS to measure constructive and destructive marital conflict has been supported by previous research (Kerig, 1996). In the present study, Destructive Marital Conflict component scales primarily correlated strongly with each other ($r = .31, p = .001$ to $r = .63, p < .001$), with the exception of Child Involvement and Avoidance-Capitulation ($r = -.013, p = .884$). As expected, Destructive Marital conflict component scales correlated negatively with the Constructive Marital Conflict scale ($r = -.19, p = .042$ to $r = -.39, p < .001$; see Table 2).

Preliminary Analyses

Next, preliminary analyses were conducted to determine if any variables needed to be controlled in the main analyses. Correlations between the demographic variables and outcome variables (child internalizing and externalizing behavior) were calculated (see Table 3). There were no demographic variables that were significantly related to the dependent variables, therefore no controls were needed for the main analyses. Child's race was dichotomized into White and Nonwhite, with the Nonwhite sample being

composed mostly of African American children. Additionally, the interrelationships among marital conflict, child routines, and child behavior problems were examined as a precondition for testing mediation (see Table 3).

Preliminary analysis proved significant for further testing with destructive marital conflict, as it was significantly negatively correlated with child routines ($r = -.196, p = .031$), and positively correlated with both internalizing ($r = .306, p = .001$), and externalizing ($r = .461, p < .001$) behaviors. However, constructive marital conflict was only significantly correlated with child routines ($r = .212, p = .019$), and not with internalizing ($r = -.105, p = .25$) or externalizing behaviors ($r = -.153, p = .094$), precluding further tests of mediation with constructive marital conflict.

Main Analyses

The first series of multiple regression analyses examined child routines as a mediator of destructive marital conflict and internalizing behavior. The first regression supported a direct effect between destructive marital conflict and internalizing behavior, $F(1, 119) = 12.28, \beta = .306, p = .001$. The second regression supported a significant relation between destructive marital conflict and child routines, $F(1, 119) = 4.74, \beta = -.196, p = .031$. The third regression tested the relation between child routines and internalizing behavior controlling for destructive marital conflict. The model was significant, $F(2, 118) = 7.64, p = .001$, but the relation between child routines and internalizing behavior was only marginally significant, $\beta = -.148, p = .096$. After entering child routines as a mediator between destructive marital conflict and internalizing behaviors, the direct pathway was reduced from ($\beta = .306, p = .001$) to ($\beta = .277, p = .002$). Although there was a decrease in magnitude of the direct effect, the indirect effect

was not significant according to the Sobel (1982) test of indirect effects, $z = 1.324$, $p = .185$.

The second series of multiple regression analyses examined child routines as a mediation of destructive marital conflict and externalizing behavior. The first regression supported a direct effect between destructive marital conflict and externalizing behavior, $F(1, 119) = 32.17$, $\beta = .461$, $p < .001$. The second regression supported a significant relation, as previously shown, between destructive marital conflict and child routines, $F(1, 119) = 4.74$, $\beta = -.196$, $p = .031$. The third regression tested the relation between child routines and externalizing behavior controlling for destructive marital conflict. The model was significant $F(2, 118) = 23.96$, $p < .001$, and the direct relation between child routines and externalizing behavior was significant, $\beta = -.281$, $p = .001$. After entering child routines as a mediator, the direct pathway from destructive to externalizing also was reduced from ($\beta = .461$, $p < .001$) to ($\beta = .406$, $p < .001$) (see Figure 1) after entering child routines. However, the indirect effect was only marginally significant as measured by the Sobel test ($z = 1.84$, $p = .065$).

Discussion

The present study tested child routines as a potential mediator of previously established relations between constructive and destructive marital conflict and children's internalizing and externalizing behavior. Initial relations between constructive marital conflict and internalizing and externalizing behaviors were weak and nonsignificant, indicating no significant relation to mediate. By contrast, destructive marital conflict was significantly positively correlated with both internalizing and externalizing behaviors and child routines was significantly negatively correlated with destructive marital conflict, as well as externalizing child behaviors. Despite meeting initial criteria to test for mediation,

once destructive marital conflict was controlled, the relation between child routines and internalizing behavior was weak and only marginally significant. Thus, the indirect effect was not significant. For the externalizing model, there was a reduction in the magnitude of the relationship between destructive marital conflict and child externalizing behavior when child routines entered into the model, although the magnitude of the difference was small and the Sobel test of indirect effects was approaching significance. Thus, child routines showed a trend toward mediating the relation between destructive marital conflict and child externalizing behavior in the present sample.

The present findings with respect to constructive marital conflict are inconsistent with findings from a preliminary study on marital satisfaction and child externalizing behaviors. In a community sample of married or partnered mothers with school-aged children, Tyson, Malkin, and Jordan (2010) found that child routines partially mediated the relation between dyadic adjustment and child externalizing behavior. The present study failed to support significant relations between constructive marital conflict and child adjustment, suggesting that constructive marital conflict and marital satisfaction are sufficiently distinct constructs, and suggesting that constructive marital conflict is unrelated to child psychopathology. Another explanation for the lack of findings related to constructive marital conflict and child adjustment is that only 5.8% of the children included in this study had received prior clinical services; whereas the Tyson, Malkin et al. (2010) study has a larger proportion of children with a history of treatment. This possible range restriction caused by our community sample may have resulted in fewer

internalizing and externalizing behaviors and weak, nonsignificant relations between constructive marital conflict and child adjustment.

The present findings also failed to support expected relations between destructive marital conflict, child routines, and child internalizing behavior. While prior studies have consistently shown relations between child routines and internalizing behaviors to be generally weaker than those of externalizing behaviors (Jordan, 2003; McLoyd, Toyokawa, & Kaplan, 2008), results were not consistent with a related study exploring child routines as a mediator between both maternal and paternal depression and child adjustment (Suozzi, Pierce, Gryczkowski, & Jordan, 2008). Researchers found that child routines did mediate the relationship between paternal depression and internalizing behavior; however, the indirect effect for the maternal depression model was only marginally significant. Findings by Suozzi et al. (2008) underscore the importance of considering parental depression in relation to child routines and internalizing behavior, particularly to the extent that depression may interact with marital conflict. Thus, parental depression may be a powerful variable to consider in future studies of child routines and marital conflict.

The marginally significant indirect effect for child routines as a partial mediator of the relation between destructive marital conflict and child externalizing behavior is consistent with previous research demonstrating significant correlations between destructive marital conflict and externalizing behaviors, as well as destructive marital conflict and child routines (Cummings et al., 2003; Tyson, Gryczkowski, & Jordan, 2010). In another preliminary study with a community sample of married couples, Tyson, Gryczkowski, et al. (2010) found that child routines partially mediated the relation

between destructive marital conflict and child externalizing behavior. However, the present findings offer weaker evidence than previously observed by Tyson, Gryczkowski, et al. (2010). One possible explanation for the discrepant findings may be related to the instruments used to measure marital conflict. Tyson, Gryczkowski et al. (2010) used the O'Leary Porter Scale (OPS; Porter & O'Leary, 1980), which is used to measure conflict that takes place in front of the child. While the CPS (Kerig, 1996) is a more comprehensive measure of both constructive and destructive marital conflict, it may be that the conflict taking place in front of the child has a much greater impact on child adjustment than that of the overall conflict. It is possible that the constructive marital conflict was not happening in front of the children, and therefore did not directly affect child behavior. In addition, the Tyson, Gryczkowski et al. (2010) and the Suozzi et al. (2008) studies included data using both mothers and fathers as informants, whereas the present study relied on mother's perceptions of marital conflict only. This underscores the importance of obtaining father's report of marital conflict and child behavior.

The present findings are considered in light of study limitations. The first improvement that could be made is that of the mother rating the child and the conflict occurring in the marriage without the father's input. This not only discounts the father's opinion of the marital relationship, but also that of his child's behaviors. Although the father's and mother's responses are shown to positively correlate on the marital conflict measure, having an additional, independent informant of the child's routines and behavior would be beneficial. Second, the present study relied solely on questionnaire data which introduces the possibility of self serving bias or a tendency to represent oneself in a particular way. Inclusion of observational measures of conflict, routines, or

child behavior would be important in future work. In addition, the cross-sectional design prevents any conclusions from being drawn regarding the direction of effects. In other words, it is not clear if marital conflict causes child behavior problems or vice versa, or if there are bidirectional influences. Future studies should include additional measurement methods and time-series designs.

References

- Achenbach, T.M., & Rescorla, L.A. (2001). *Manual for ASEBA School-Age Forms & Profiles*. Burlington, VT: University of Vermont, Research Center for Children, Youth, & Families.
- Anderson, D.L., Spratt, E.G., Macias, M.M., Jellinek, M.S., Murphy, J.M., Pagano, M., & Barbosa, E. (1999). Use of pediatric symptom checklist in the pediatric checklist in the pediatric neurology population. *Pediatric Neurology*, 20(2), 116-20.
- Barkley, R.A. (1997). *Defiant Children: A clinician's manual for assessment and parent training* (2nd edition). New York: Guilford Press.
- Baron, R., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173–1182.
- Baumrind, D. (1971). Current patterns of parental authority. *Developmental Psychology Monographs*, 4, 1-103.
- Bradford, K. & Barber, B.K. (2002). Interparental conflict as intrusive family process. *Journal of Emotional Abuse*, 5, 143-167.
- Brody, G.H., & Flor, D.L. (1997). Marital psychological functioning, family processes, and child adjustment in rural, single-parent, African American families. *Developmental Psychology*, 33(6), 1000-11.
- Brunnekeef, J.A., De Sonnevile, L.M., Althaus, M., Minderaa, R.B., Oldehinkel, A.J., Verhulst, F.C., & Ormel, J. (2007). Information processing profiles of internalizing and externalizing behavior problems: Evidence from a popular-based

- sample of preadolescents. *Journal of Child Psychology and Psychiatry*, 48(2), 185-93.
- Cummings, E.M., Goeke-Morey, M.C., & Papp, L.M. (2003). Children's responses to everyday marital conflict tactics in the home. *Child Development*, 74, 1918-1929.
- Davies, P.T., & Cummings, E.M. (1994). Marital conflict and child adjustment: An emotional security hypothesis. *Psychological Bulletin*, 116(3), 387-411.
- Doyle, A.B., & Markiewicz, D. (2005). Parenting, marital conflict and adjustment from early- to mid-adolescence: Mediated by adolescent attachment style? *Journal of Youth and Adolescence*, 34(2), 97-110.
- Engfer, A. (1988). The interrelatedness of marriage and the mother-child relationship. In Hindle, R.A. & Hind, J.S. (Eds), *Relationships within families: Mutual influences (pp. 104-118)*. Oxford, England: Oxford University Press.
- Fauber, R., Forehand, R., Thomas, A.M., & Wierson, R. (1990). A mediational model of the impact of marital conflict on adolescent adjustment in intact and divorced families: The role of disrupted parenting. *Child Development*, 61, 1112-23.
- Frosch, C.A., Mangelsdorf, S.C., & McHale, J.L. (2000). Marital behavior and the security of preschooler-parent attachment relationships. *Journal of Family Psychology*, 14, 144-161.
- Gonzales, N.A., Pitts, S.C., Hill, N.E., & Roosa, M.W. (2000). A mediational model of the impact of interparental conflict on child adjustment in a multiethnic, low-income sample. *Journal of Family Psychology*, 14, 365-379.

- Goodman, S.H., Barfoot, B., Frye, A.A., & Belli, A.M. (1993). Dimensions of marital conflict and children's social problem-solving skills. *Journal of Family Psychology, 13*, 33-45.
- Hair, E.C., Moore, K.A., Garrett, S.B., Ling, T., & Cleveland, K. (2008). The continued importance of quality parent-adolescent relationships during late adolescence. *Journal of Research on Adolescence, 18(1)*, 187-200.
- Henderson, J.A., & Jordan, S.S. (2010). Developmental and preliminary evaluation of the Bedtime Routines Questionnaire. *Journal of Psychopathology and Behavioral Assessment, 32*, 271-280.
- Holmbeck, G. (1997). Toward terminological, conceptual, and statistical clarity in the study of mediators and moderators: Examples from the child-clinical and pediatric psychology literatures. *Journal of Consulting and Clinical Psychology, 64 (4)*, 599-610.
- Jordan, S. S. (2003). Further validation of the Child Routines Inventory (CRI): Relationship to parenting practices, maternal distress and child externalizing behavior.(Unpublished doctoral dissertation).Louisiana State University, Baton Rouge, LA.
- Jouriles, E. N., McDonald, R., Norwood, W. D., & Ezell, E. (2001). Issues and controversies in documenting the prevalence of children's exposure to domestic violence. In Graham-Bermann, Sandra A., Edleson, Jeffrey L. (Eds.),*Domestic Violence in the Lives of Children: The Future of Research, Intervention, and Social Policy* (pp. 13-34). Washington DC, US: American Psychological Association.

- Kaczynski, K.J., Laurenceau, J.P., Lindahl, K.M., & Malik, N.M. (2006). Marital conflict, maternal and paternal parenting, and child adjustment: A test of mediation and moderation. *Journal of Family Psychology, 20*, 199-208.
- Kerig, P.A. (1996). Assessing the links between interparental conflict and child adjustment: The conflicts and problem-solving scales. *Journal of Family Psychology, 10*, 454-473.
- McLoyd, V.C., Toyokawa, T., & Kaplan, R. (2008). Work demands, work-family conflict, and child adjustment in African American families: The mediating role of family routines. *Journal of Family Issues, 29(10)*, 1247-1267.
- Miller, N.B., Cowan, P.A., Cowan, C.P., Hetherington, E.M., & Clingempeel, W.G. (1993). Externalizing in preschoolers and early adolescents: A cross-study replication of a family model. *Developmental Psychology, 29(1)*, 3-18.
- Murphy, D.A., Marelich, W.D., Herbeck, D.M., & Payne, D.L. (2009). Family routines and parental monitoring as protective factors among early and middle adolescents affected by maternal HIV/AIDS. *Child Development, 80(6)*, 1676-1691.
- Nelson, J., Duffy, R., & Erwin, C., (1998). *Positive discipline for preschoolers: For their early years – raising children who are responsible, respectful, and resourceful*. Revised 2nd ed., Rocklin, CA: Prima.
- Nelson, J., Lott, L. & Glenn, S. (1999). *Positive discipline A- Z: From toddlers to teens- 1001 solutions to everyday parenting problems*. Revised 2nd ed., Rocklin, CA: Prima.
- Patterson, G. R., DeBaryshe, B. D., & Ramsey, E. (1989). A developmental perspective on antisocial behavior. *American Psychologist, 44*, 329-335.

- Porter, B., & O’Leary, K. D. (1980). Marital discord and child behavior problems. *Journal of Abnormal Child Psychology*, 8, 287–295.
- Prelow, H.M, Loukas, A., & Jordan-Green, L. (2007). Socioenvironmental risk and adjustment in Latino youth: The mediating effects of family processes and social competence. *Journal of Youth Adolescence*, 36, 465-476.
- Schoppe-Sullivan, S.J., Schermerhorn, A.C., & Cummings, E.M. (2007). Marital conflict and children’s adjustment: Evaluation of the parenting process model. *Journal of Marriage and Family*, 69, 1118-1134.
- Schudlich, T. D., & Cummings, E. M. (2003). Parental dysphoria and children’s internalizing symptoms: Marital conflict styles as mediators of risk. *Child Development*, 74, 1663-1681.
- Sobel, M. E. (1982). Asymptotic confidence intervals for indirect effects in structural equations models. In S. Leinhardt (Ed.), *Sociological methodology 1982*, (pp. 290-312). San Francisco: Jossey-Bass.
- Suoizzi, A., Pierce, J., Gryczkowski, M., & Jordan, S.S. (2008, November). Child routines as a mediator between maternal and paternal depression and children’s internalizing problems. Poster session presented at the 42nd Annual Convention of the Association for Behavioral and Cognitive Therapies, Orlando, FL.
- Sytsma, S.E., Kelley, M.L., & Wymer, J.H. (2001). Development and initial validation of the Child Routines Inventory. *Journal of Psychopathology and Behavioral Assessment*, 23(4), 241-51.

Tyson, K., (2011). Evaluating parenting practices as a mediating factor between marital conflict and children's adjustment (Unpublished master's thesis). University of Southern Mississippi, Hattiesburg, MS.

Tyson, K., Gryczkowski, M., & Jordan, S. (2010, November). Evaluating child routines as a mediating factor between marital conflict and children's externalizing behavior. Poster session presented at the 44th Annual Convention of the Association for Behavioral and Cognitive Therapies, San Francisco, CA.

Tyson, K. Malkin, M., & Jordan, S. (2010, March). Evaluating child routines as a mediating factor between dyadic adjustment and children's externalizing behavior. Poster presented at the 56th Annual Convention of the Southeastern Psychological Association, Chattanooga, TN.

Table 1

Participant Demographics

Variable	Online (n = 65) n (%)	Paper (n = 56) n (%)	Total (n = 121) n (%)
Child's Sex			
Male	33 (50.8)	33 (58.9)	66 (54.5)
Female	32 (49.2)	23 (41.1)	55 (45.5)
Child's Age M (SD)			
6	10 (15.4)	14 (25)	24 (19.8)
7	8 (12.3)	9 (16.1)	17 (14)
8	14 (21.5)	6 (10.7)	20 (16.5)
9	11 (16.9)	8 (14.3)	19 (15.7)
10	7 (10.8)	8 (14.3)	15 (12.4)
11	10 (15.4)	7 (12.5)	17 (14)
12	5 (7.7)	4 (7.1)	9 (7.4)
Child's Race			
Caucasian	61 (93.8)	23 (41.1)	84 (69.4)
Nonwhite ^a	4 (6.2)	33 (58.9)	37 (30.6)
Length of Marriage			
Hollingshead	3.63 (.85)	2.87 (.94)	3.28 (.97)
1	1 (1.5)	2 (3.6)	3 (2.5)
2	5 (7.7)	19 (33.9)	24 (19.8)
3	19 (29.2)	22 (39.3)	41 (33.9)
4	32 (49.2)	10 (17.9)	42 (34.7)
5	8 (12.3)	3 (5.4)	11 (9.1)

Note: ^a Nonwhite was 27.35% African American and 3.3% Mixed or “Other”.

Table 2

CPS Scale Correlations

	Avoid	Stone	Verbal	Physical	Involve
Coop	-.185*	-.293**	-.382***	-.390***	-.212*
Avoid		.423***	.305**	.327**	-.013
Stone			.630***	.602***	.411***
Verbal				.513***	.546***
Physical					.377***

Note. Coop = Cooperation; Avoid = Avoidance-Capitulation; Stone = Stonewalling;

Verbal = Verbal Aggression; Physical = Physical Aggression; Involve = Child

Involvement.

* $p < .05$, ** $p < .01$, *** $p < .001$

Table 3

Correlation between Demographics and Dependent Variables

Demographics	Internalizing	Externalizing
Child Sex ^a	-.111	-.030
Child Age	.070	.047
Mothers Age	-.057	-.175
Race ^b	-.087	.001
Recruitment Method ^c	-.252**	-.076
Hollingshead	.080	-.064

Note. ^a Male = 0, Female = 1, ^b White = 1, Nonwhite = 2, ^c Online = 1, Paper = 2;

* $p < .05$, ** $p < .01$

Table 4

Correlations Among Study Variables

	1	2	3	4	5
1. Internalizing	-	.651 ^{***}	-.202 [*]	.306 ^{**}	-.105
2. Externalizing		-	-.361 ^{***}	.461 ^{***}	-.153
3. Child Routines			-	-.196 [*]	.212 [*]
4. Destructive MC				-	-.402 ^{***}
5. Constructive MC					-

Note. MC = Marital Conflict

* $p < .05$, ** $p < .01$, *** $p < .001$

Figure 1. Marginally Significant Findings with Child Routines as a Mediator of Destructive Marital Conflict and Child Externalizing Behavior

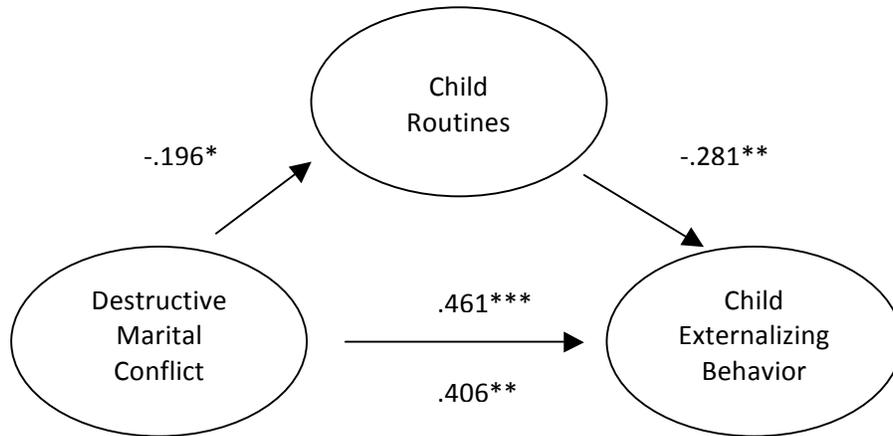


Figure 1. Coefficients represent beta weights for the paths. The coefficient above the arrow on the path from destructive marital conflict to child externalizing behavior represents the initial, direct path coefficient. The coefficient reported below the arrow represents the coefficient after including child routines in the model. After entering child routines as a mediator, the indirect effect was marginally significant as measured by the Sobel (1982) test.

$*p \leq .05$, $**p < .01$, $***p < .001$